TECHNICAL SUPPORT FOR THE
CENTER FOR ENTERPRISE INTEGRATION

DELIVERY ORDER FOR GCCS DATABASE MIGRATION

IMRAS/NPG
SOFTWARE REQUIREMENTS SPECIFICATION
29 MARCH 1996

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SECTION 1 - SCOPE

1.1 IDENTIFICATION

The purpose of this document is to specify the software requirements for developing the Individual Manpower Requirements and Availability System (IMRAS). This system is being developed for the Global Command and Control System (GCCS) Database Migration under Contract Number DCA100-94-D-0016.

1.2 OVERVIEW

On 30 October 1992, Systems Research and Applications (SRA) Corporation delivered the IMRAS Preliminary Software Requirements Specification (SRS) to the Joint Staff. This document specified the interface and capability requirements for the individual personnel module of the Joint Operation Planning and Execution System (JOPES). These requirements grew primarily out of the Desert Shield and Desert Storm experience.

In March 1995, under Contract Number DCA100-94-D-0016, a GCCS Database task was begun that included migrating the Non-unit Personnel Generator (NPG) capability from the World Wide Military Command and Control System (WWMCCS) mainframe computer to the GCCS server. Since NPG requirements also exist in the IMRAS SRS, NPG was migrated using the IMRAS SRS as a guide.

NPG was created using Sybase's Gain Momentum 4GL development environment and was delivered to the Government on 4 August 1995. It includes Filler and Replacement requirements analysis, Personnel Working File build and edit functions, and Non-unit Time-Phased Force and Deployment Data (TPFDD) build and edit functions. NPG functions access data in Medical Planning and Execution System (MEPES) tables and allows users to merge Non-unit TPFDDs into existing Operation Plans (OPLANs) on the GCCS database.

1.3 DOCUMENT OVERVIEW

In January 1996, a new task began under Contract Number DCA100-94-D-0016 to validate the requirements in the IMRAS SRS and develop IMRAS accordingly. This document contains the original, modified, and new requirements obtained as a result of the validation, and is organized as follows:

Section 1 contains the IMRAS overview.

Section 2 identifies the documents referenced.

Section 3 contains the IMRAS Engineering Requirements.

Section 4 contains the Test Requirements.

Section 5 is the list of terms, abbreviations, and acronyms that are used in this document.

SECTION 2 - REFERENCED DOCUMENTS

The documents listed below were referenced when preparing this manual. Should a conflict occur between these documents and the contents of the IMRAS SRS, the SRS shall take precedence.

2.1 SPECIFICATIONS

User Interface Specifications for the Defense Information Infrastructure (DII), Version 2, Preliminary Draft, Defense Information Systems Agency (DISA), December 31, 1995.

Preliminary Software Requirements Specification for the Individual Manpower Requirements and Availability System (IMRAS), SRA Corporation, Arlington, VA, 30 October 1992.

Individual Manpower Requirements and Availability System Logical Data Model (LDM), SRA Corporation, Arlington, VA, March 1992.

2.2 OTHER PUBLICATIONS

MEPES Users' Manual, SRA Corporation, Arlington, VA, March 1996.

MEPES Maintenance Manual, SRA Corporation, Arlington, VA, September 1995.

NPG Users' Manual, SRA Corporation, Arlington, VA, March 1996.

NPG Maintenance Manual, SRA Corporation, Arlington, VA, November 1995.

Software Development Plan, SRA Corporation, Arlington, VA, February 1996.

SECTION 3 - ENGINEERING REQUIREMENTS

This section of the GCCS IMRAS SRS contains the general and capability requirements for the IMRAS capabilities. Most of these requirements were derived from the original JOPES IMRAS SRS developed in October 1992. The rest were developed as a result of hardware and software platform changes and changes in the Joint Staff's needs.

Detailed technical information concerning IMRAS external interface requirements will be published in an Interface Requirements Specification (IRS). Specifically, the IRS will identify the data elements that each Services' system will provide and describe the requirements for obtaining the data. For example, some systems may not allow direct access to their databases, but will provide Compact Discs (CDs) periodically or through regular distribution of data via E-mail.

Until the external interfaces are defined, the original IMRAS Logical Data Model (LDM) will be used to allow the preliminary development of the IMRAS capabilities, based on the requirements in this SRS. Doing this will enable SRA to develop the IMRAS capability infrastructure (application code) using the data element descriptions in the LDM, replacing those data elements that have GCCS counterparts. This includes coding the access mechanisms to the GCCS Core Database, MEPES tables, and IMRAS tables. The capabilities will be complete when data from the external interfaces is stored in the GCCS database.

3.1 IMRAS GENERAL REQUIREMENTS

The following requirements specify the platform and external interfaces that IMRAS will use.

IMRAS **shall(1)** operate on the Sun Solaris 2.4 operating system.

SRA **shall(2)** extend the NPG application to include all validated requirements from the IMRAS SRS.

SRA **shall(3)** develop IMRAS using the Gain Momentum development environment.

IMRAS **shall(4)** obtain the data it needs from MEPES tables, IMRAS tables, and GCCS Core tables in the GCCS Database.

IMRAS external interfaces **shall(5)** include the following:

<u>Joint Service and Department of Defense (DOD) Systems</u>
Defense Manpower Data Center (DMDC)
Global Transportation Network - In Transit Visibility System (GTN-ITV)
Joint Personnel Asset Visibility (JPAV) System

Army Systems
Total Army Personnel Data Base (TAPDB)
Standard Installation/Division Personnel System 3 (SIDPERS 3)

Navy Systems

Navy Manpower Data Accounting System (NMDAS)
Officer Personnel Information System (OPINS)
Navy Enlisted System (NES)
Navy Civilian Personnel Data System (NCPDS)

Air Force Systems
Contingency Operations/Mobility Planning and Execution System (COMPES)
Command Manpower Data System (CMDS)

Marine Corps Systems
Unit Diary/Marine Integrated Personnel System (UD/MIPS)
Table of Manpower Requirements (T/MR)
Reserve Manpower Management and Pay System (REMMPS)

Coast Guard Systems
Personnel Management Information System (PMIS)
Personnel Allowance System (PAL)

3.2 IMRAS CAPABILITY REQUIREMENTS

3.2.1 Session Defaults

Most IMRAS functional capabilities are specific to OPLANs and Services. In many cases the IMRAS capabilities are also dependent on time increments and service components. Session defaults are those data items that are presumed to be constant throughout an IMRAS session. With few exceptions (noted in the requirements themselves), users will not be permitted to change the defaults of their current session.

The Session Defaults capability was previously developed for NPG. The requirements below reflect modifications to that capability.

> IMRAS Session Defaults **shall(1)** provide a service component pick list for each service.
>
> IMRAS **shall(2)** allow the user to choose only one service component from the pick list for the current session.

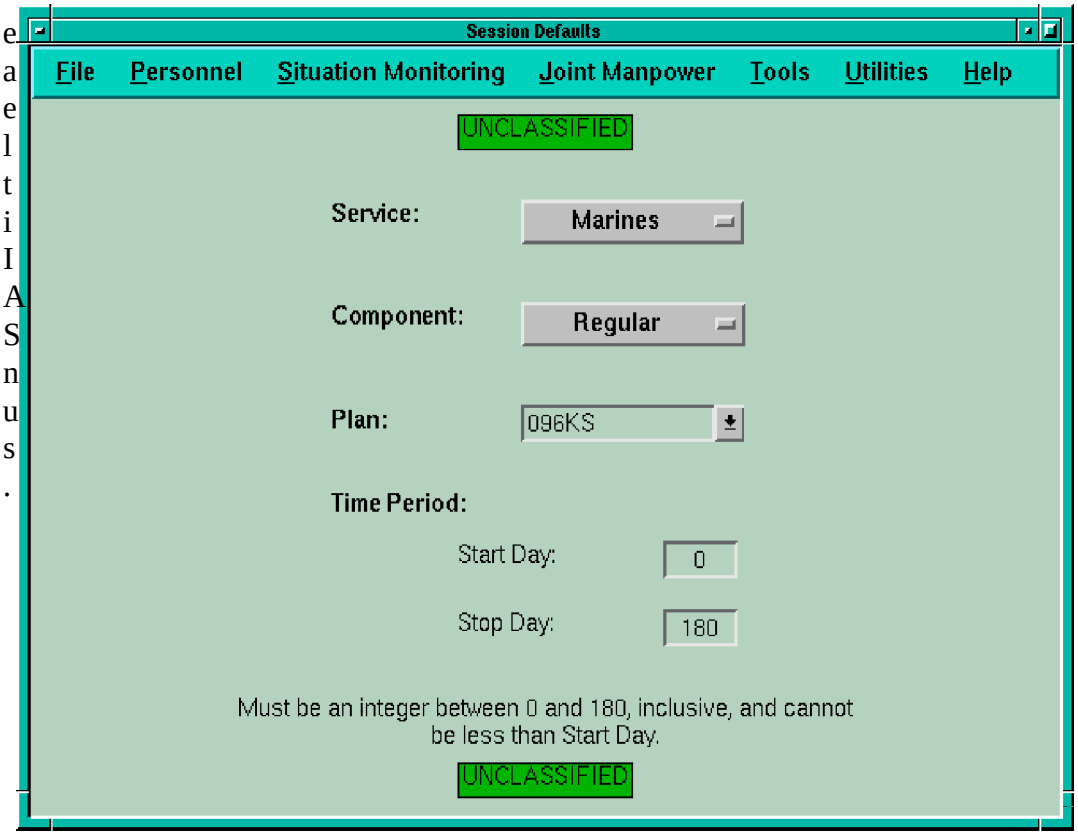
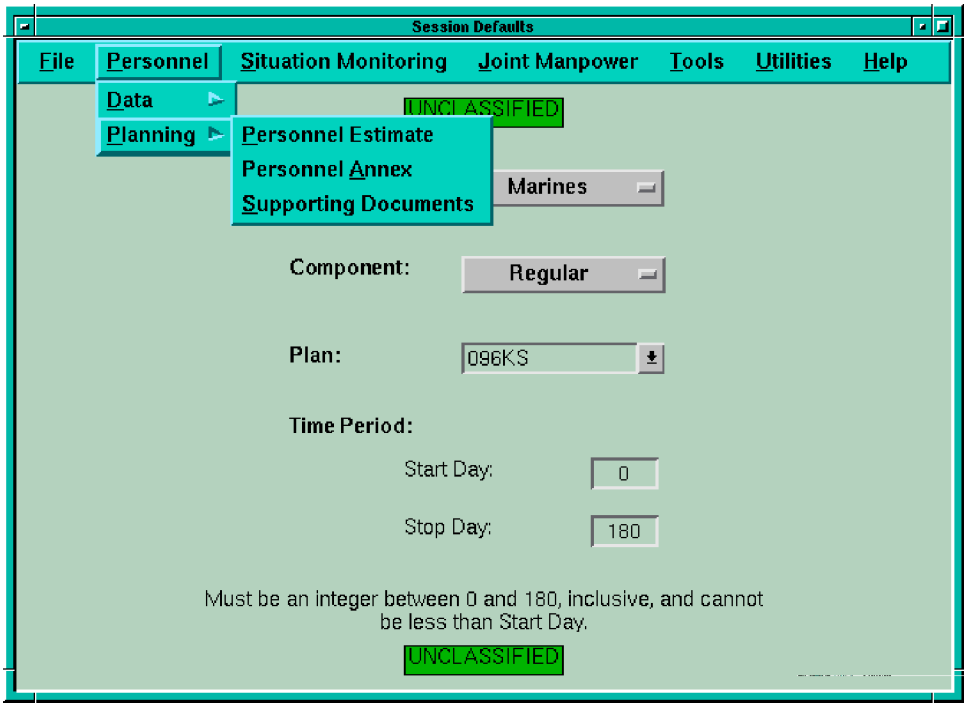


Figure 3-1 is an example of the initial IMRAS Session Defaults screen.

Figure 3-1: IMRAS Session Defaults.

3.2.2 Personnel Planning Applicati on



The Personnel Planning application allows the user to create, modify or delete personnel estimates, personnel annexes and document supporting pertaining to the specified OPLAN in Session Defaults. The Planning application consists of existing display either document or preformatted templates. Figure 3-2 depicts the menu hierarchy for obtaining the Personnel Planning screens.

Figure 3-2: Personnel Planning Menu Hierarchy.

3.2.2.1 Personnel Estimate. The purpose of the Personnel Estimate is to support the commander's estimate and provide a baseline from which to make operational decisions. The Personnel Estimate takes into account a variety of enemy and friendly considerations and compares them against possible friendly courses of action, emphasizing the personnel factors that influence the courses of action.

IMRAS **shall(1)** allow users to access personnel estimate data only in those OPLANs to which they have update permissions.

The Personnel Estimate function **shall(2)** display a pick list of all available documents from which the user can choose.

If the user selects one of these documents, the Personnel Estimate function **shall(3)** display it by launching the Applix word processor. Applix will allow the user to modify or delete the selected document, or create a new one.

When the user exists the Applix word processor, IMRAS **shall(4)** return the user to the Session Defaults screen.

3.2.2.2 Personnel Annex. The purpose of the Personnel Annex is to amplify and expand on guidance contained in OPLANs that were developed as a result of deliberate planning. Action officers and planners can develop new annexes or modify existing ones with this function.

IMRAS **shall(1)** allow users to access personnel annex data only in those OPLANs to which they have update permissions.

The Personnel Annex function **shall(2)** display a pick list of all available documents from which the user can choose.

If the user selects one of the documents, the Personnel Estimate function **shall(3)** display it by launching the Applix word processor. Applix will allow the user to modify or delete the selected document, or create a new one.

When the user exists the Applix word processor, IMRAS **shall(4)** return the user to the Session Defaults screen.

3.2.2.3 Supporting Documents. The purpose of the Supporting Documents are to allow staff officers and planners to store reference files such as directives, orders, and instructions that are required to accomplish personnel related tasks.

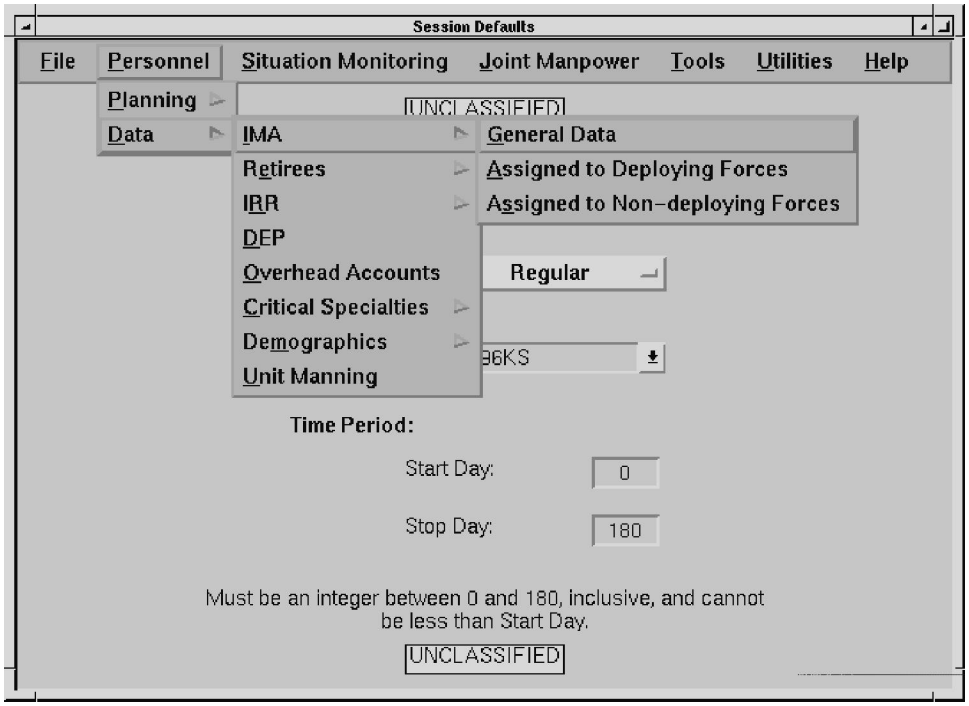
IMRAS **shall(1)** allow users to access those supporting documents to which they have update permissions.

The Supporting Documents function **shall(2)** display a pick list of all available documents from which the user can choose.

If the user selects one of the documents, the Supporting Documents function **shall(3)** display it by launching the Applix word processor. Applix will allow the user to modify or delete the selected document, or create a new one.

When the user exists the Applix word processor, IMRAS **shall(4)** return the user to the Session Defaults screen.

3.2.3 Personnel Application Data



The Personnel Data application allows users to display various categories of personnel. This application also allows the user to view information about overhead accounts, critical occupation specialties, demographics, and unit manning levels. Personnel data consists of the following sub-areas:

IMA (Individual Mobilization Augmentee)
Retirees
IRR (Individual Ready Reserve)
DEP (Dependents)
Overhead Accounts
Critical Specialties
Personnel Demographics
Unit Manning.

3.2.3.1 Individual Mobilization Augmentee Application. The IMA personnel pool makes up a significant source of pre-trained personnel that has trained with a particular Unit or activity and is available with minimal lead time to augment deploying or supporting forces. There are three options for displaying IMA information: IMA Personnel General Data, IMA assigned to deploying forces and IMA assigned to non-deploying forces. Figure 3-3 depicts the menu hierarchy for obtaining the IMA display options.

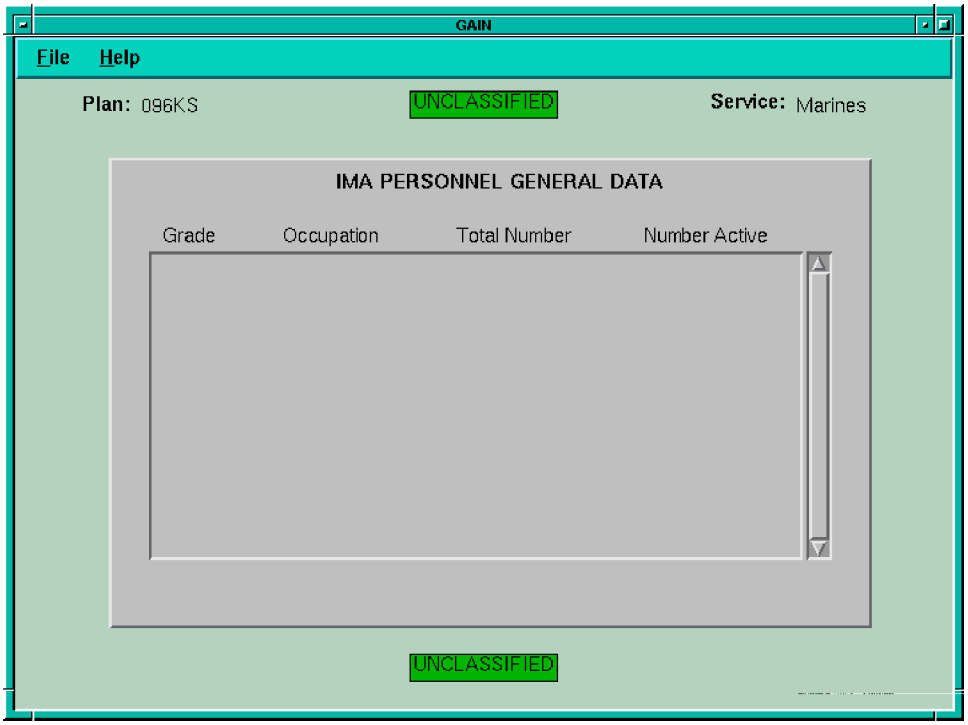


Figure 3-3: IMA Options Hierarchy

Display Menu

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Retrieve and Display IMA Personnel General Data

IMRAS **shall(1)** identify all units that meet the service and component criteria specified in Session Defaults.

IMRAS **shall(2)** aggregate the total number of IMAs by grade and occupation.

IMRAS **shall(3)** aggregate the total number of IMAs which have been activated by grade and occupation.

IMRAS **shall(4)** display the IMA Personnel General Data screen in tabular format containing the following information:

- Grade
- Occupation
- Total Number (of IMA Personnel)
- Number Active.

Figure 3-4 is an example of the IMA Personnel General Data screen containing all IMA data.

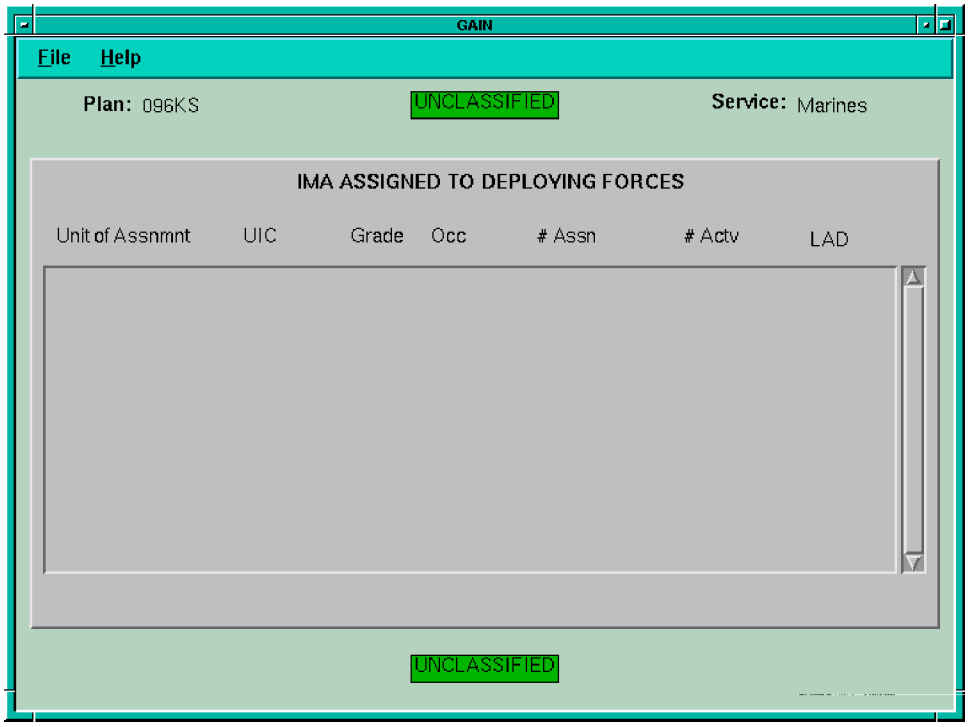


Figure 3-4: IMA Personnel General Data.

IMA Deployment Data

IMRAS **shall(5)** identify all units that meet all criteria specified in Session Defaults.

IMRAS **shall(6)** determine the number of assigned and activated IMAs for each deploying unit by grade and occupation.

IMRAS **shall(7)** aggregate activated and assigned daily totals for every ten day period inclusive for the next 90 days, i.e., 30-120, 60-150.

IMRAS **shall(8)** display an IMA detail screen for IMA assigned to deploying forces in tabular format containing the following information:

- Unit of Assignment
- UIC (Unit Identification Code)
- Grade
- Occ (Occupation)
- #Assn (Number of Assigned IMA Personnel)
- #Actv (Number of Active IMA Personnel)
- LAD (Unit Latest Arrival Date).

Figure 3-5 is an example of the IMA Assigned to Deploying Forces Screen.

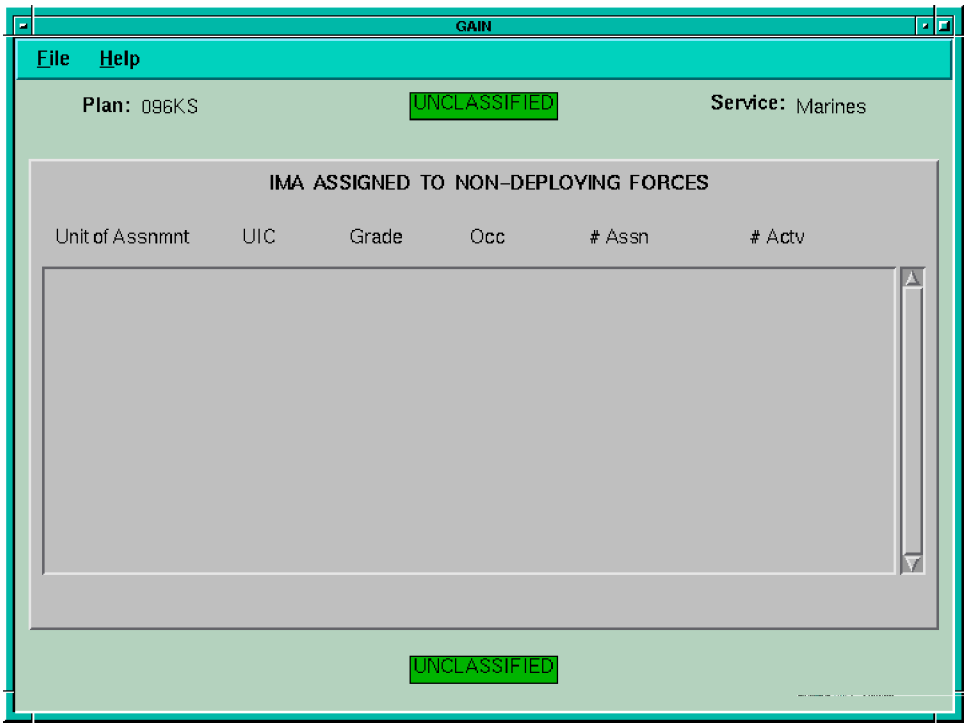


Figure 3-5: IMA Assigned to Deploying Forces.

IMA Non-Deployment Data

IMRAS **shall(9)** identify all units that meet all criteria specified in Session Defaults.

IMRAS **shall(10)** determine the number of assigned and activated IMAs for each non-deploying unit by grade and occupation.

IMRAS **shall(11)** display an IMA non-deploying Unit data screen in tabular format containing the following information:

- Unit of Assignment
- UIC
- Grade
- Occ (Occupation)
- #Assn (Number of Assigned IMA Personnel)
- #Actv (Number of Active IMA Personnel)

Figure 3-6 is an example of the IMA Assigned to Non-deploying Forces screen.

Figure 3-6: IMA Assigned to Non-Deploying Forces.

3.2.3.2 Retirees. Each Service uses plans to meet skill retirees to enhance critical manning shortfalls, provide force for levels, and personnel. back-fill retirees deploying pre- Although they are are mostly relatively trained, grade and also Service senior in own age. Each for has its and using policies Figure 3-7 recalling retirees. depicts the menu hierarchy for obtaining Retiree data.

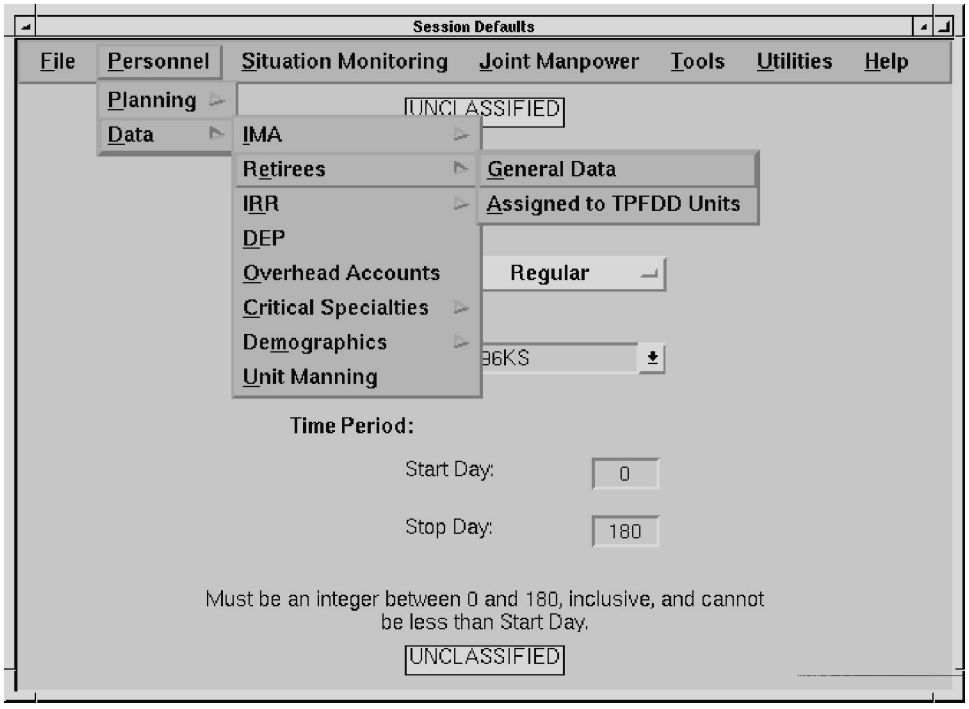


Figure 3-7: Retiree Menu Hierarchy.

IMRAS **shall(1)** allow the user to view general data associated with all Retirees and data associated with Retirees assigned to OPLAN TPFDD Units.

IMRAS **shall(2)** identify all units that meet all criteria specified in Session Defaults.

IMRAS **shall(3)** determine the number of active and assigned retirees for each Unit by grade and occupation.

IMRAS **shall(4)** determine the number of active and available retirees for each Unit by grade and occupation.

Based on the user's choice for viewing Retiree information:

IMRAS **shall(5)** display the Retiree Personnel General Data screen, as illustrated in Figure 3-8, by providing the following data in tabular format:

- Grade
- Occupation
- Total Number (Number of Retirees Available)
- Number Active (Number of Retirees Assigned).

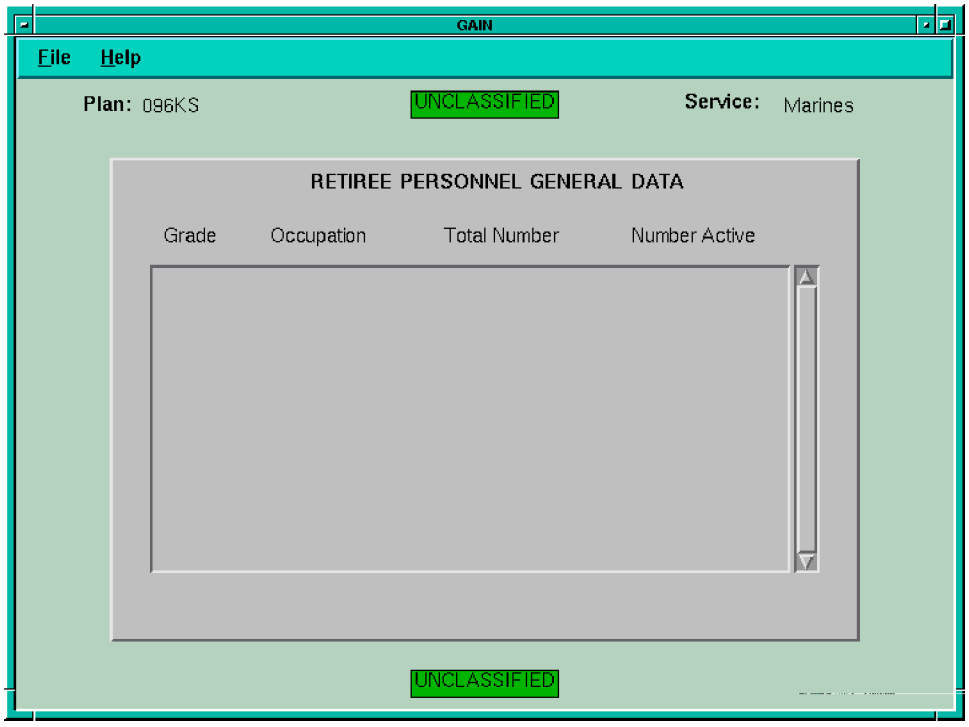


Figure 3-8: Retiree Personnel General Data.

IMRAS **shall(6)** display the Retirees Assigned to TPFDD Units screen by providing the following data in tabular format:

- Unit of Assignment
- UIC
- Grade
- Occ (Occupation)
- #Assn (Number of Retirees Assigned)
- #Actv (Number of Retirees Activated)
- LAD.

Figure 3-9 is an example of the Retirees Assigned to TPFDD Units screen.

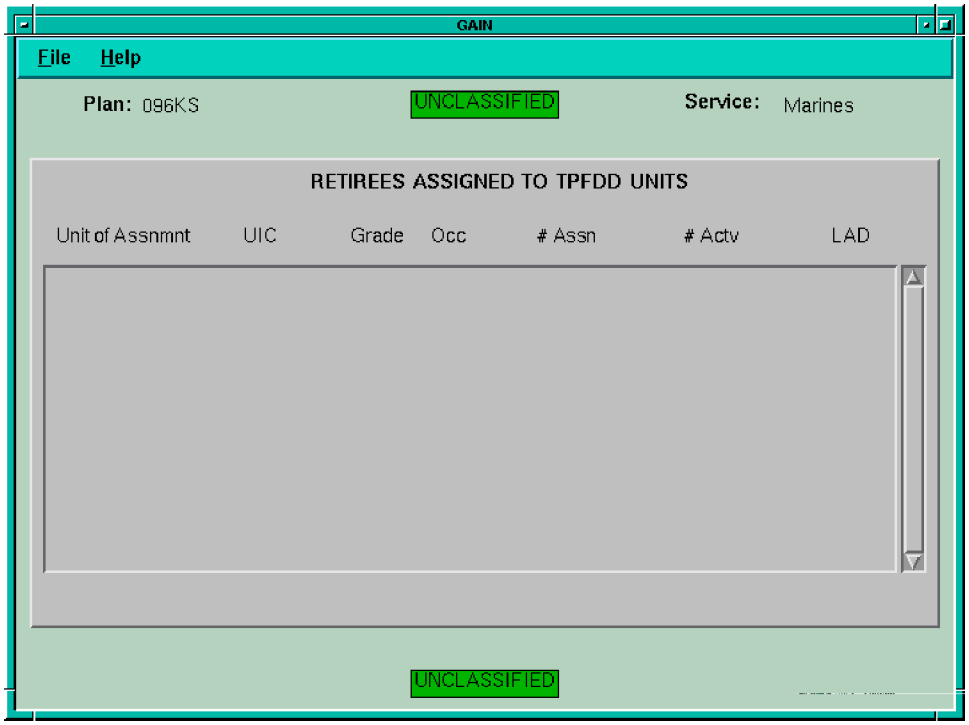


Figure 3-9: Retirees Assigned to TPFDD Units.

3.2.3.3 Individual Ready Reserve. The IRR makes up the largest pre-trained personnel source for OPLAN filler and replacement personnel. IRR may be called to active duty and assigned to operational deploying United Continental States (CONUS) support Units, or they may be programmed for movement as Non-unit Related Personnel (NRP). Figure 3-10 depicts the menu hierarchy for obtaining IRR data.

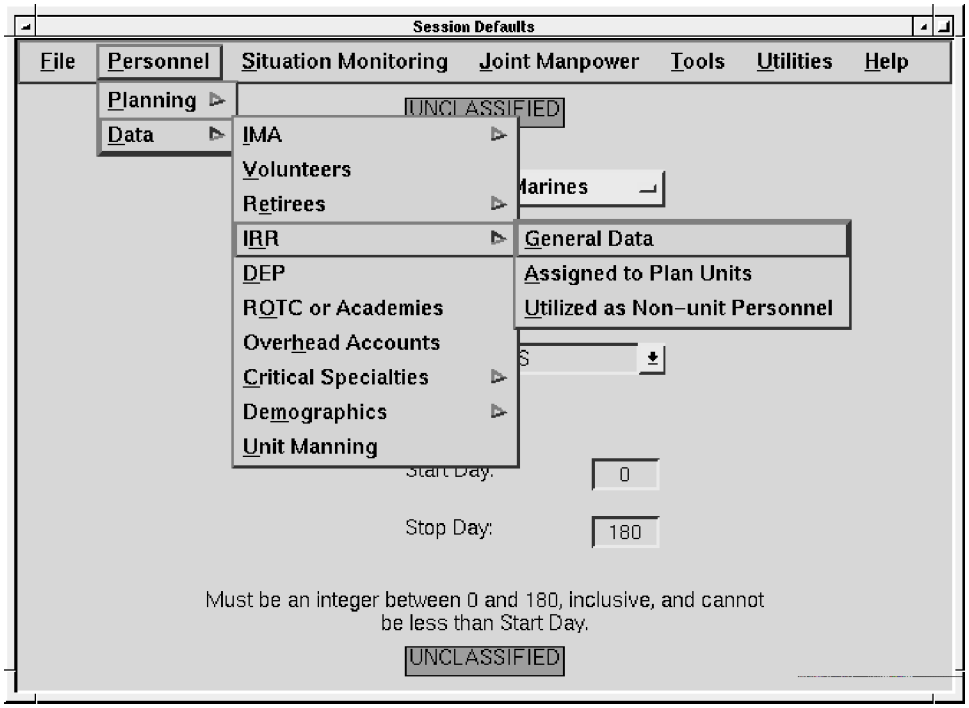


Figure 3-10: IRR Menu Hierarchy.

IMRAS **shall(1)** identify all IRR personnel that meet the service and component criteria specified in Session Defaults.

IMRAS **shall(2)** filter the IRR personnel to obtain those that are sourced against the OPLAN specified in Session Defaults.

IMRAS **shall(3)** filter the IRR personnel to obtain those with a status code of 'mobilized'.

IMRAS **shall(4)** filter the IRR personnel to obtain those with a status code of 'deployed'.

IMRAS **shall(5)** display the Entire IRR Pool screen, as illustrated in Figure 3-11, by providing the following data in tabular format:

- Grade
- Occupation
- Total Available
- Total Mobilized.

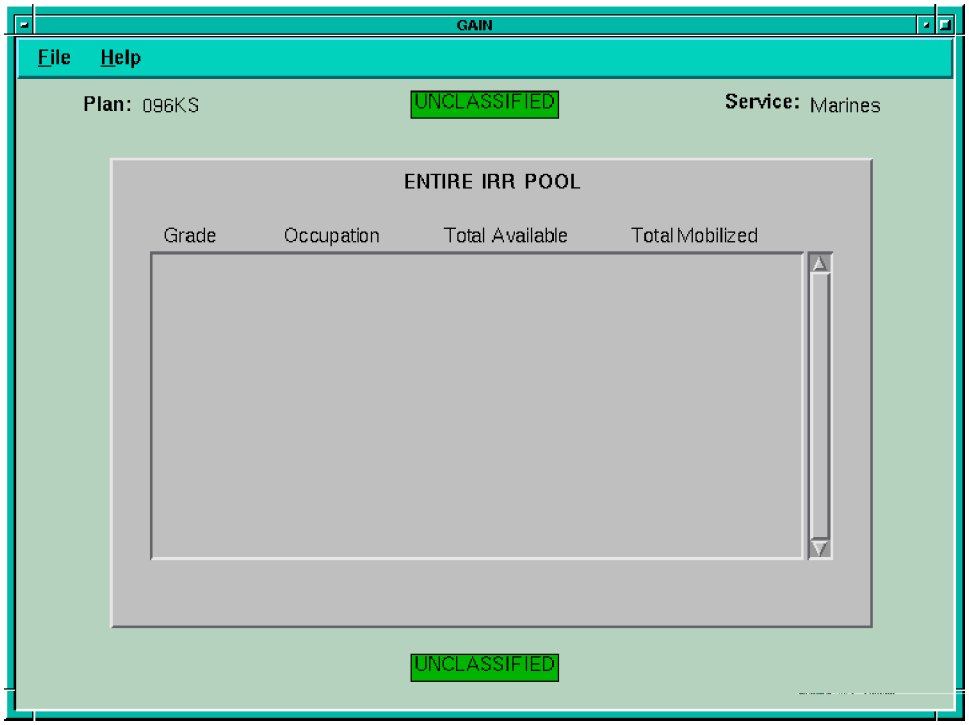


Figure 3-11: Entire IRR Pool.

IMRAS **shall(6)** display the IRR Personnel Assigned to OPLAN Units screen, as illustrated in Figure 3-12, by providing the following data in tabular format:

- Grade
- Occ (Occupation)
- Total Avail
- # Assigned to OPLAN Units.

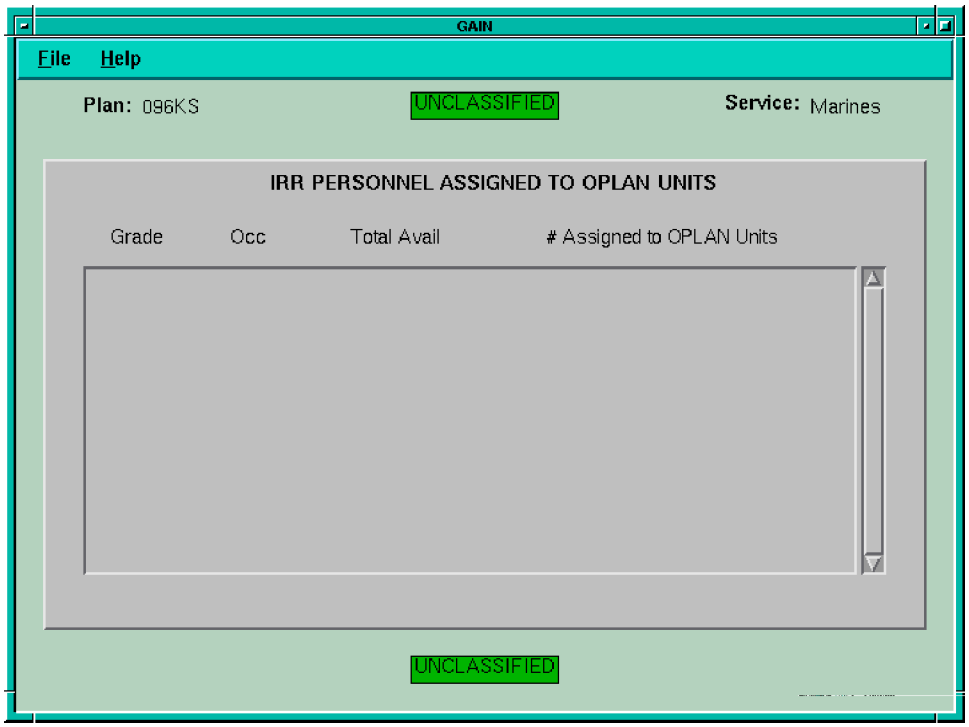


Figure 3-12: IRR Personnel Assigned to OPLAN Units.

IMRAS **shall(7)** display the IRR Utilized as Non-unit Personnel screen, as illustrated in Figure 3-13, by providing the following data in tabular format:

- Grade
- Occ (Occupation)
- Total Avail
- Total Called
- Total Deployed.

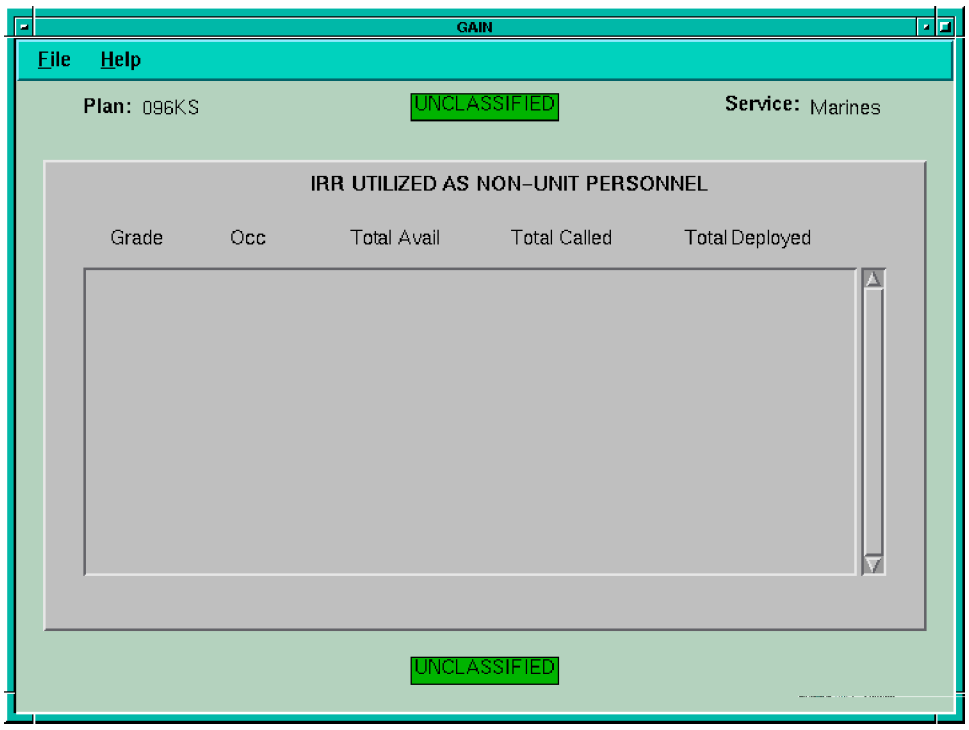


Figure 3-13: IRR Utilized as Non-Unit Personnel.

3.2.3.4 Delayed Entry Program. The DEP represents a pool of untrained personnel who have contracted for enlistment into the Armed Forces at a specific time. Although not yet active, they are subject to call earlier than originally contracted should an emergency or crisis materialize. These personnel must complete all training requirements before they are available to meet OPLAN or supporting requirements. Ordering DEP personnel to active duty results in an immediate input to the training base and will provide filler and replacement personnel when their training has completed. Figure 3-14 depicts the menu hierarchy for obtaining DEP data.

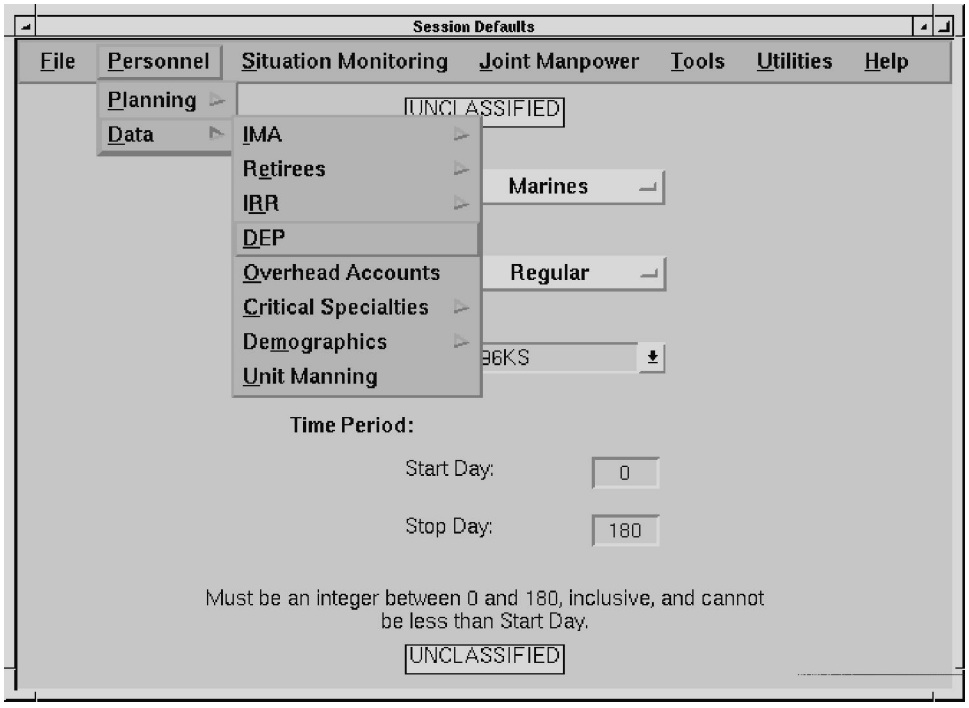


Figure 3-14: DEP Menu Hierarchy.

IMRAS **shall(1)** identify all DEP personnel that meet the service and component criteria specified in Session Defaults.

IMRAS **shall(2)** aggregate the number of DEP for each month of the past six months and for the current month.

IMRAS **shall(3)** display the current and past composition of the DEP pool for the past six months.

Figure 3-15 is an example of the DEP Composition screen.

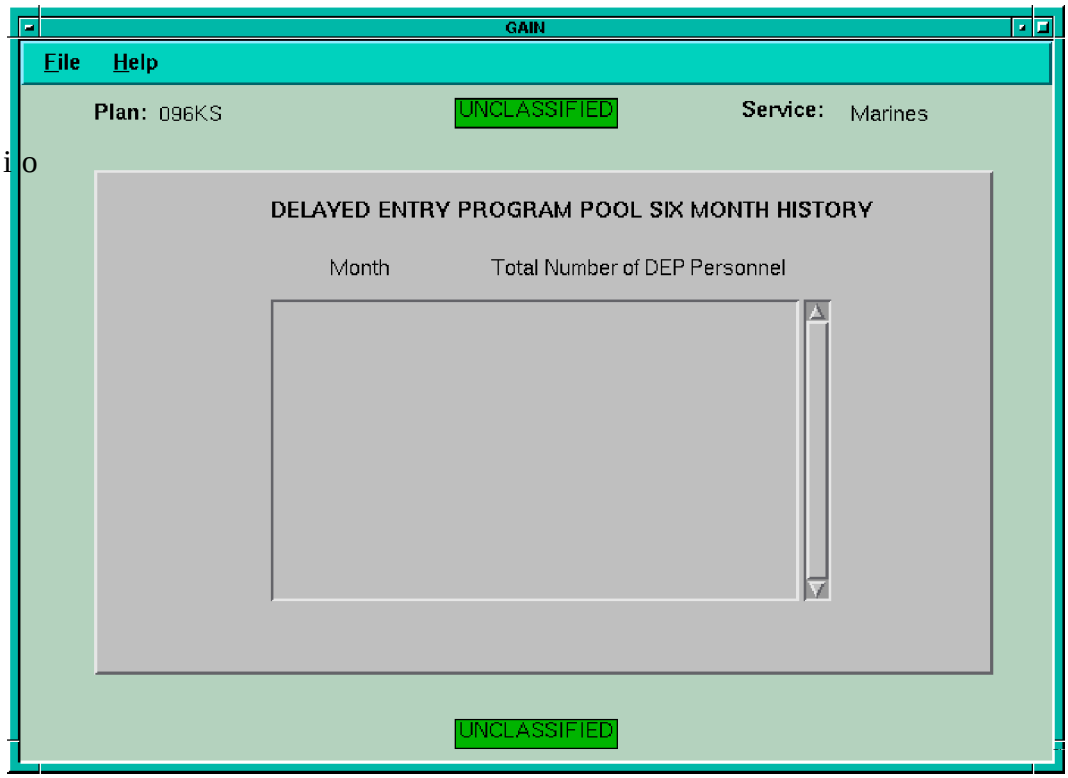
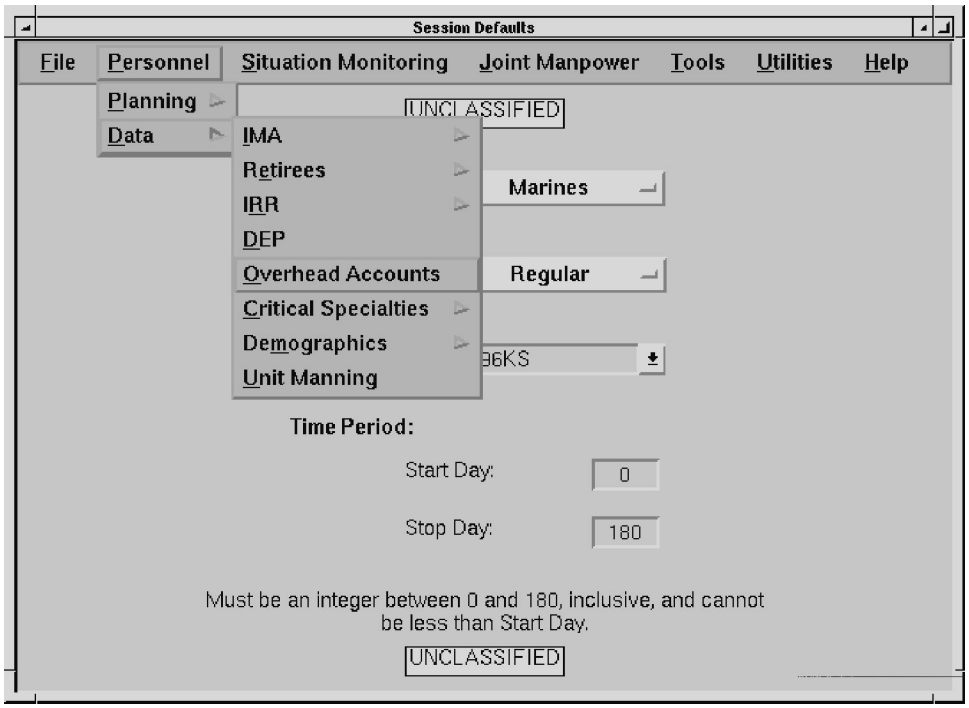


Figure 3-15: DEP Composition.

3.2.3.5 Overhead Accounts. Service overhead accounts consist of individuals in the following categories that precludes them from being assigned to operational units and activities:



Personnel in training

Personnel in student status

Transient personnel
Hospital patients
Prisoners.

Although personnel in these categories can be diverted to meet filler and replacement requirements, they are highly fluid causing the compositions of their categories to change daily. Figure 3-16 depicts the menu hierarchy for obtaining Overhead Accounts status.

Figure 3-16: Overhead Accounts Menu Hierarchy.

IMRAS **shall(1)** identify all personnel that meet the service and component criteria and whose Port of Debarkation (POD) latest arrival date is within the specified time period as specified in Session Defaults.

IMRAS **shall(2)** determine the available overhead accounts personnel by grade, occupation and available date.

IMRAS **shall(3)** calculate the available Deployment Operation Commencement Day (C-Day) from the available date.

IMRAS **shall(4)** display the Overhead Accounts data screen, by providing the following data in tabular format:

- C-Day
- Available Date
- Primary OCC
- Grade
- # Available (Number of Personnel Available).

Figure 3-17 is an example of the Overhead Accounts Personnel Data screen.

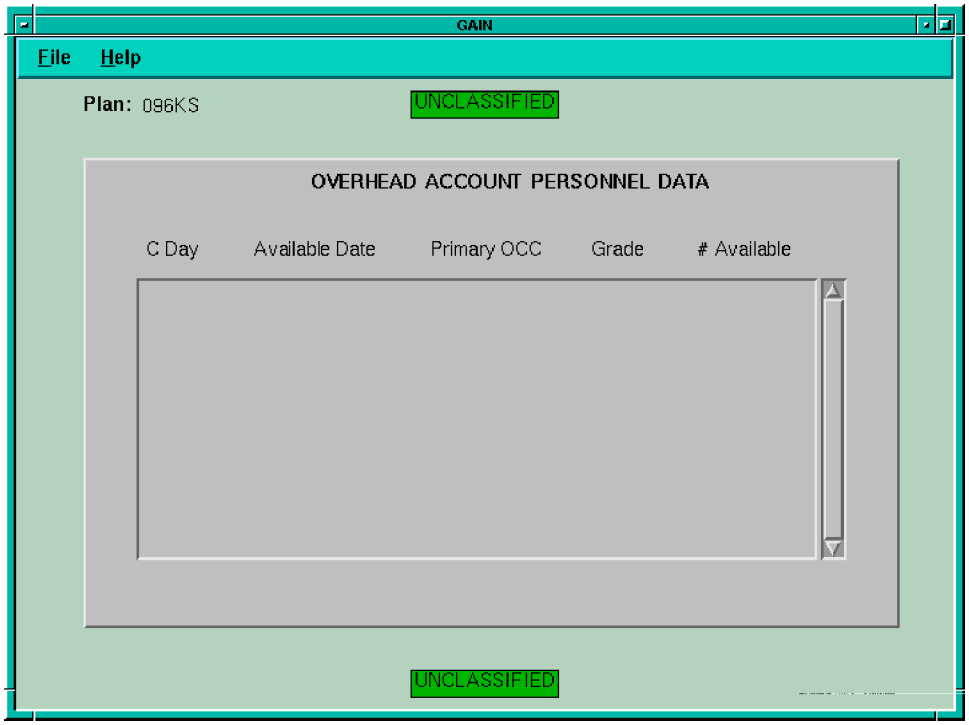


Figure 3-17: Overhead Accounts Personnel Data.

3.2.3.6 Critical Specialties. Each Service has occupational specialties deemed critical when personnel available do not meet Unit requirements. Data pertaining to critical specialties is of value for planners forming determining courses of alternate action to meet individual personnel requirements. The designation of a critical specialty is often unique to a particular operation, for example, a particular language specialty. There are also specialty requirements that are critical to each service based on overall shortages in the inventory. Figure 3-18 depicts the menu hierarchy for obtaining Critical Specialties.

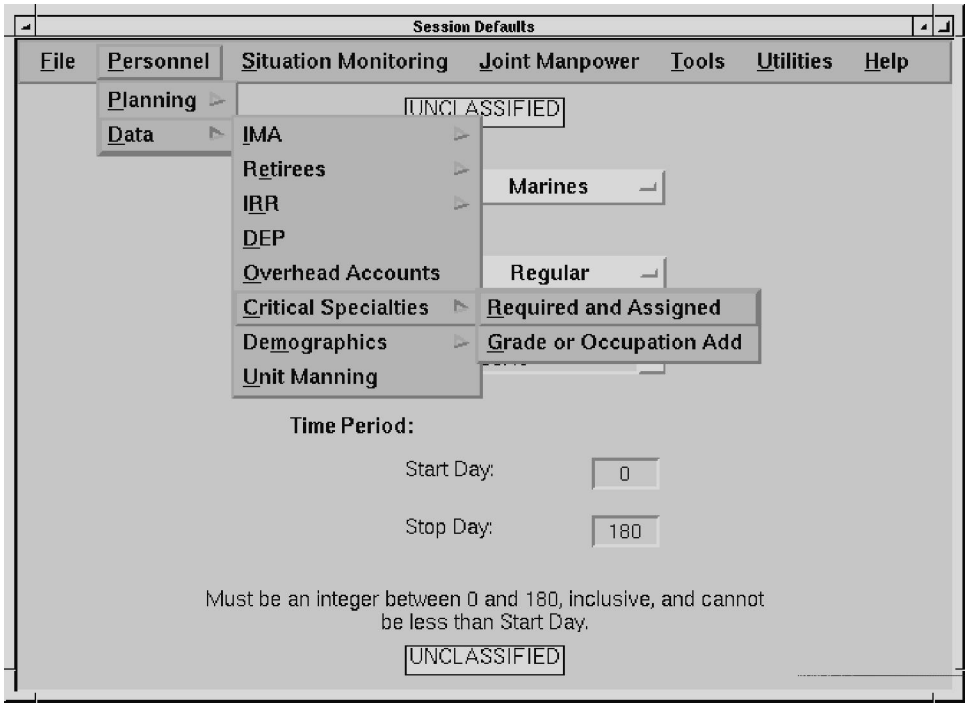


Figure 3-18: Critical Specialties Menu Hierarchy.

IMRAS **shall(1)** identify all critical specialties in the database by service and component specified in Session Defaults.

IMRAS **shall(2)** identify all Units sourced against the OPLAN for the service and component specified in Session Defaults.

IMRAS **shall(3)** determine the number of critical specialties required and assigned by grade and occupation for OPLAN and service.

IMRAS **shall(4)** display the Critical Specialties data screen by providing the following data in tabular format:

- Occ (Occupation)
- Grade
- # OPLAN Required
- # OPLAN Assigned
- Total Service Required
- Total Service Assigned.

Figure 3-19 is an example of the Critical Specialties Required and Assigned screen.

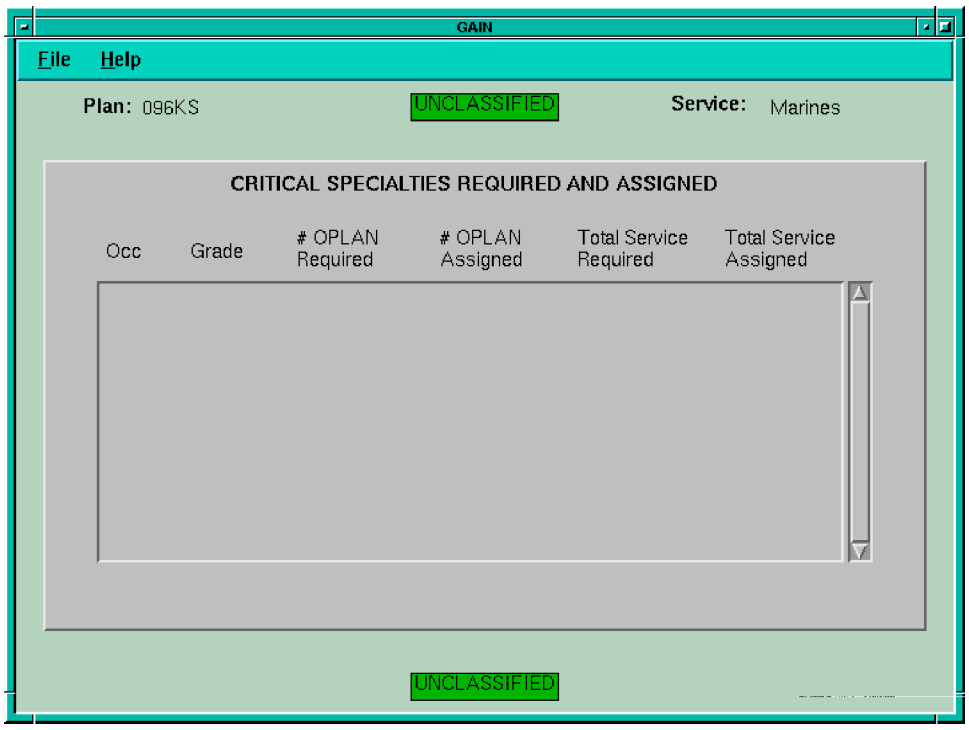


Figure 3-19: Critical Specialties Required and Assigned.

IMRAS **shall(5)** allow users to add Critical Specialties by Grade and Occupation by presenting the Critical Specialties input screen illustrated in Figure 3-20.

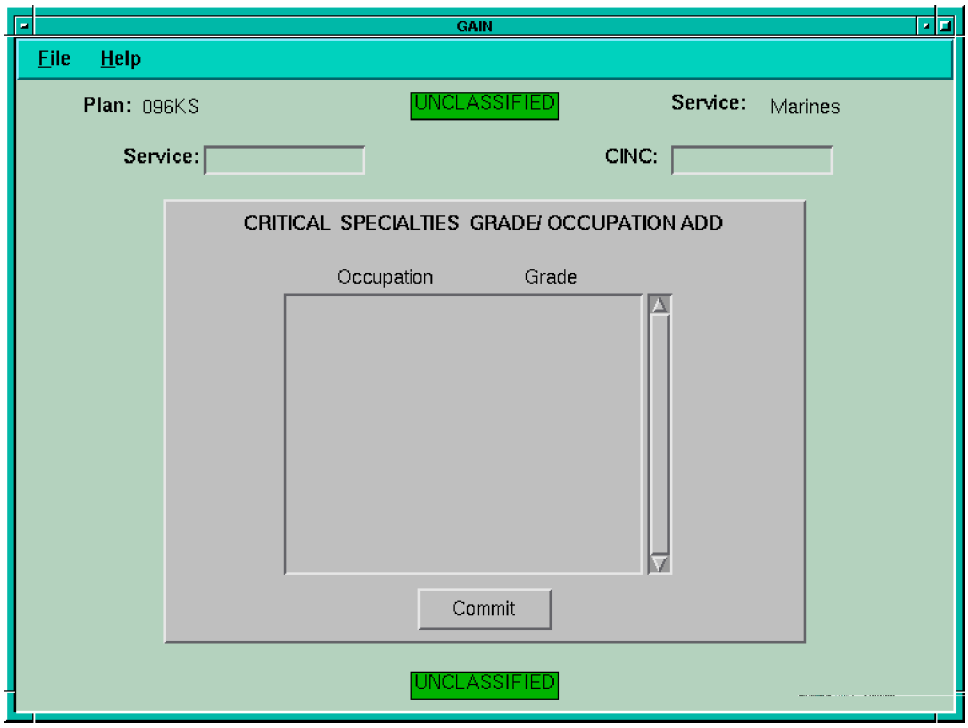


Figure 3-20: Critical Specialties Grade/Occupation Add.

IMRAS **shall(6)** update Critical Specialties data in the IMRAS Database.

3.2.3.7 Demographics. Demographics displays information characterizing the force: quantity, distribution, and vital statistics. The Personnel Demographics provides summary data such as race, state of residence, and sex, and The Stop-Loss Demographics includes display numbers of individuals by grade and skill who are scheduled to leave a service during specific time periods. Figure 3-21 depicts the menu hierarchy for Personnel and Stop-Loss Demographics.

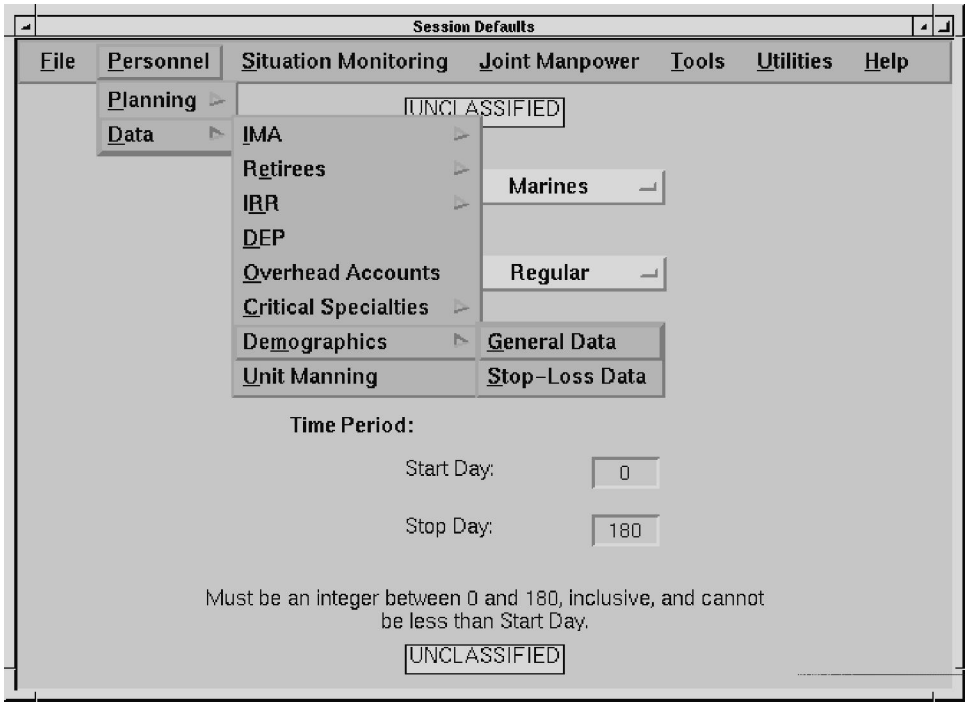


Figure 3-21: Demographics Menu Hierarchy.

IMRAS **shall(1)** identify all Units sourced against the OPLAN for the service and

component specified in Session Defaults.

IMRAS **shall(2)** determine the number of personnel by race, sex, and state residence.

IMRAS **shall(3)** display the Personnel Demographics General data screen, as illustrated in Figure 3-22, by providing the following data in tabular format:

- Male (Male personnel count by race and total force)
- Female (Female personnel count by race and total force)
- Total (Total personnel count by race and total force).

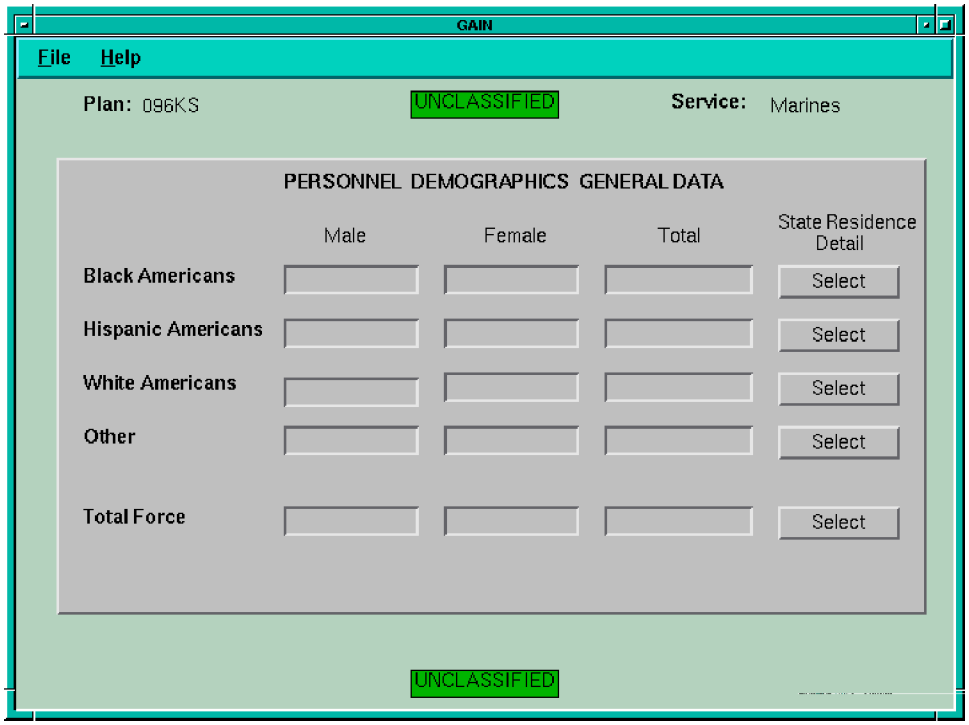


Figure 3-22: Personnel Demographics General Data.

IMRAS **shall(4)** allow the user to select a Race and display the Demographic State Residence Screen for that race, as depicted in Figure 3-23, by providing the following data in tabular format:

- State Residence
- Male
- Female
- Total.

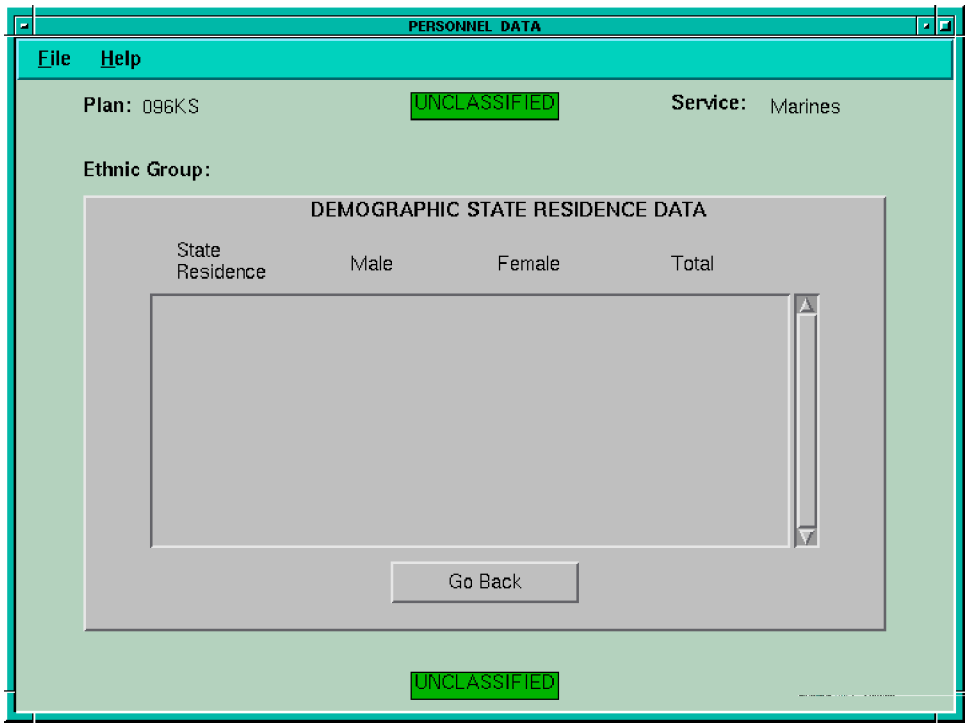


Figure 3-23: Demographic State Residence Data.

IMRAS **shall(5)** identify all units sourced against the OPLAN for the service and component specified in Session Defaults and whose POD LAD is within the specified time period.

IMRAS **shall(6)** identify critical specialties.

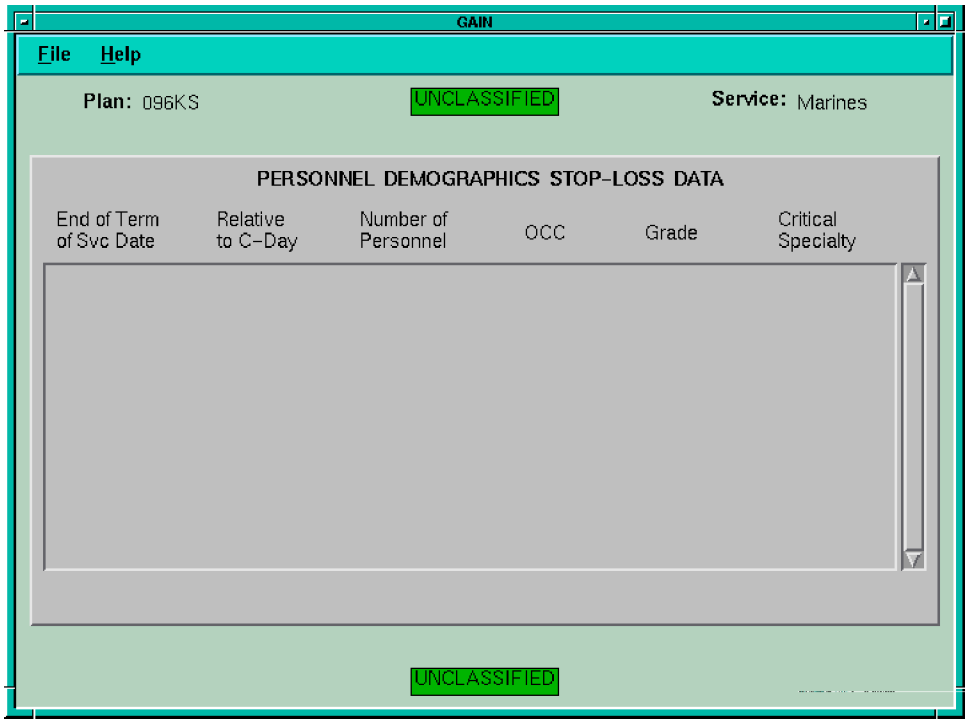
IMRAS **shall(7)** determine the number of personnel by grade, occupation and end of term of service date.

IMRAS **shall(8)** calculate the relative C-Day from end of term of service date and OPLAN execution date.

IMRAS **shall(9)** determine if the occupation is critical.

IMRAS **shall(10)** display the Demographics Stop-Loss Data screen by providing the following data in tabular format:

- End of Term of Svc Date
- Relative to C-Day
- Number of Personnel
- OCC (Occupation)
- Grade



-Critical Specialty.

24 is an example Demographics Data Stop-Loss screen.

Figure 3-24: Personnel Demographics Stop-Loss Data.

3.2.3.8 Unit Manning. Unit Manning provides visibility of a Unit's personnel status and the impact that the OPLAN mission accomplishment. Figure 3-25 depicts the menu hierarchy for Unit Manning.

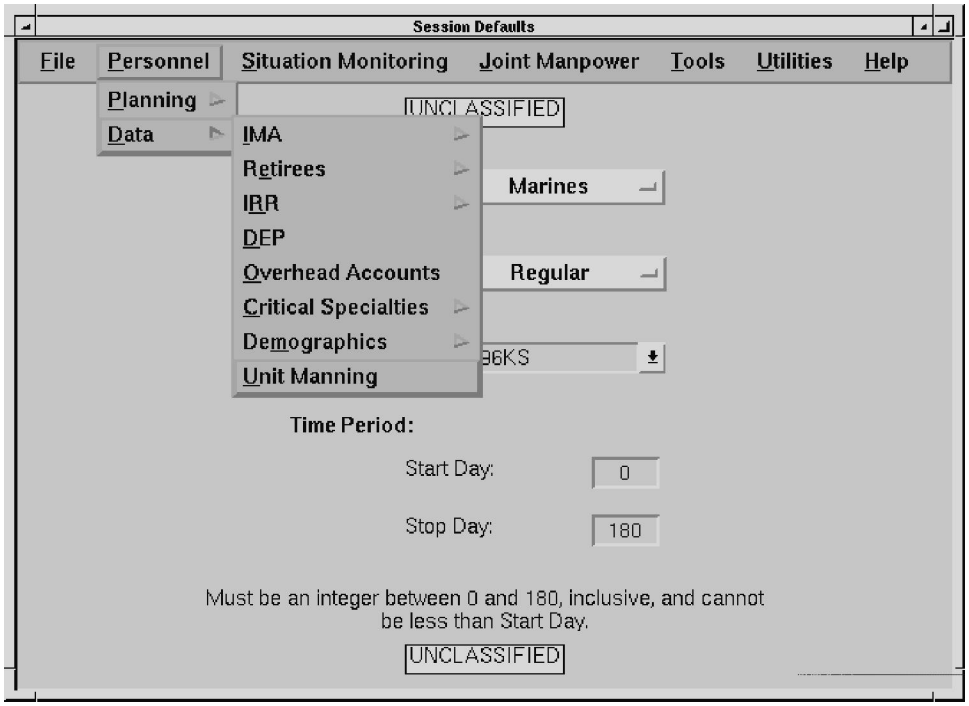


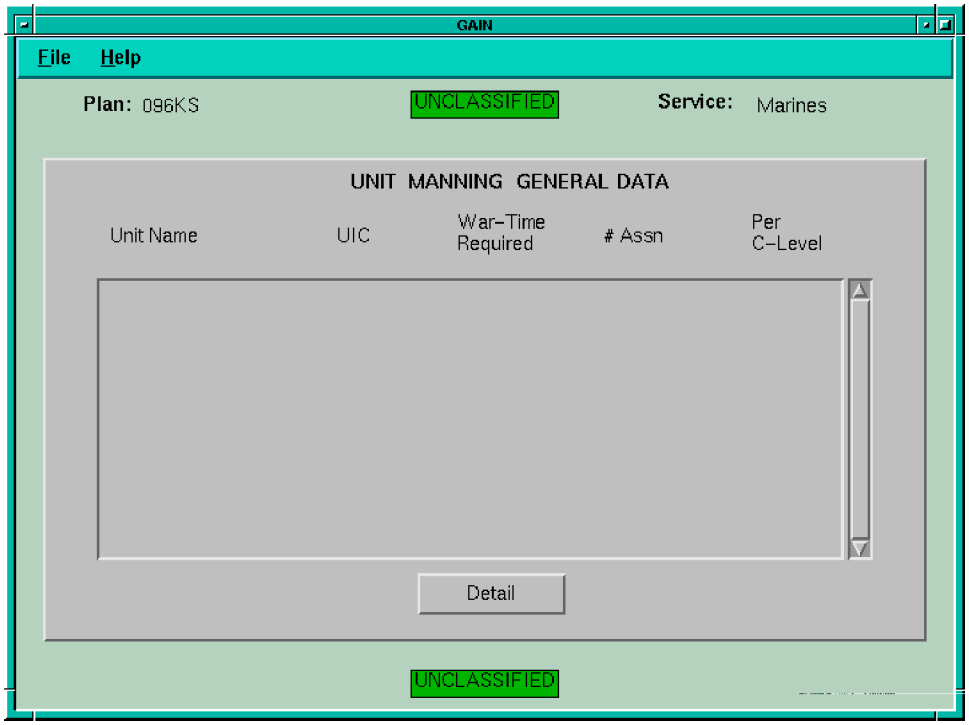
Figure 3-25: Unit Manning Menu Hierarchy.

IMRAS **shall(1)** identify all Units sourced against the OPLAN for the service and component specified in Session Defaults.

IMRAS **shall(2)** determine the Product Specification Level (C-Level) for each Unit.

IMRAS **shall(3)** determine the wartime required and assigned personnel for each Unit by grade and occupation.

IMRAS **shall(4)** aggregate the number of Units per C-Level.



IMRAS shall (5) display Unit Manning General Data in tabular format as follows:

- Unit Name
- UIC
- War-time Required (Personnel)
- # Assn (Number of Assigned Personnel)
- Per C-Level.

Figure 3-26 is an example of the Unit Manning General Data screen.

Figure 3-26: Unit Manning General Data.

IMRAS **shall(6)** allow the user to select a Unit to obtain more detailed information.

IMRAS **shall(7)** display a Unit Manning Detail screen for the selected Unit by providing the following data in tabular format:

- UIC
- Grade
- Occ (Occupation)
- ASI (Additional Skill Identifier)
- Required (Number of Personnel Required)
- # Assn (Number of Personnel Assigned).

Figure 3-27 is an example of the Unit Manning Detail screen.

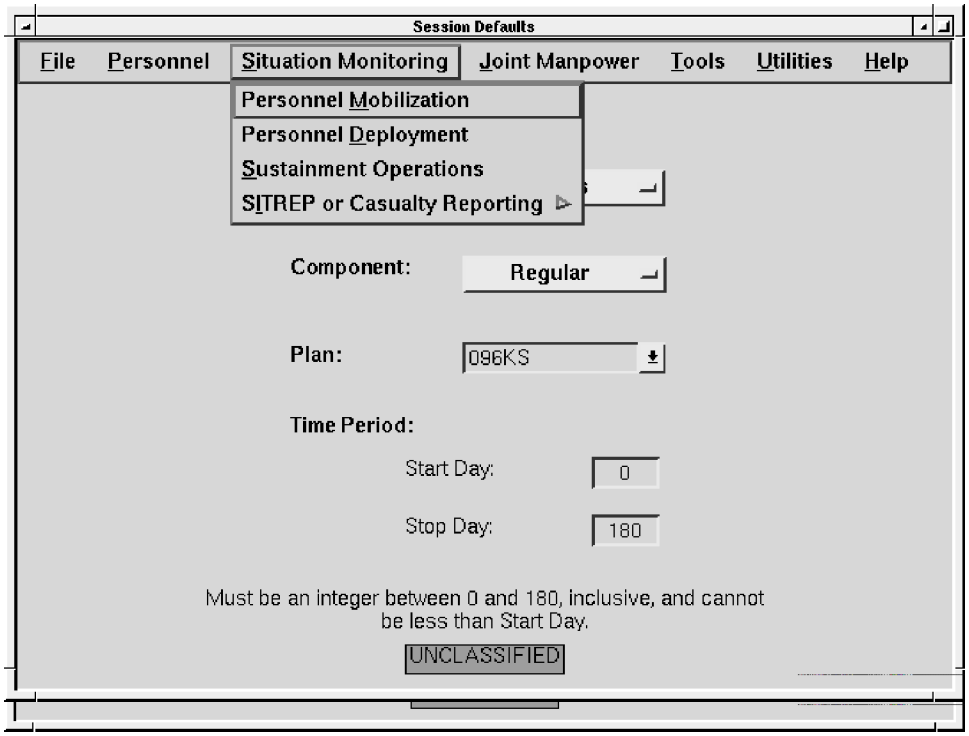


Figure 3-27: Unit Manning Detail.

3.2.4 Situation Monitoring

In a crisis situation, Personnel Action Officers and Planners require accurate information quickly, to develop reports on personnel-related events that affect mobilization, deployment and sustainment. The Situation Monitoring function provides these capabilities under four broad categories:

Personnel Mobilization
Personnel Deployment
Sustainment Operations
Situation Report (SITREP) and Casualty Report (CASREP) Data.

3.2.4.1 Personnel Mobilization. The number of individuals that can be mobilized to meet OPLAN requirements is specified by the particular legal authority invoked by the President or Congress. The Joint Staff and Officer of the Secretary of Defense (OSD) have responsibility to ensure that the limits imposed by law are not exceeded. Personnel Mobilization provides information by personnel category on the progress of mobilization. This information is known as the "J1 Report" and is a requirement contained in the Joint Reporting System (JRS). Figure 3-28 depicts the menu hierarchy for Personnel Mobilization.

Figure 3-28: Personnel Mobilization Menu Hierarchy.

IMRAS **shall(1)** identify all Units sourced against the OPLAN for the service and component specified in Session Defaults.

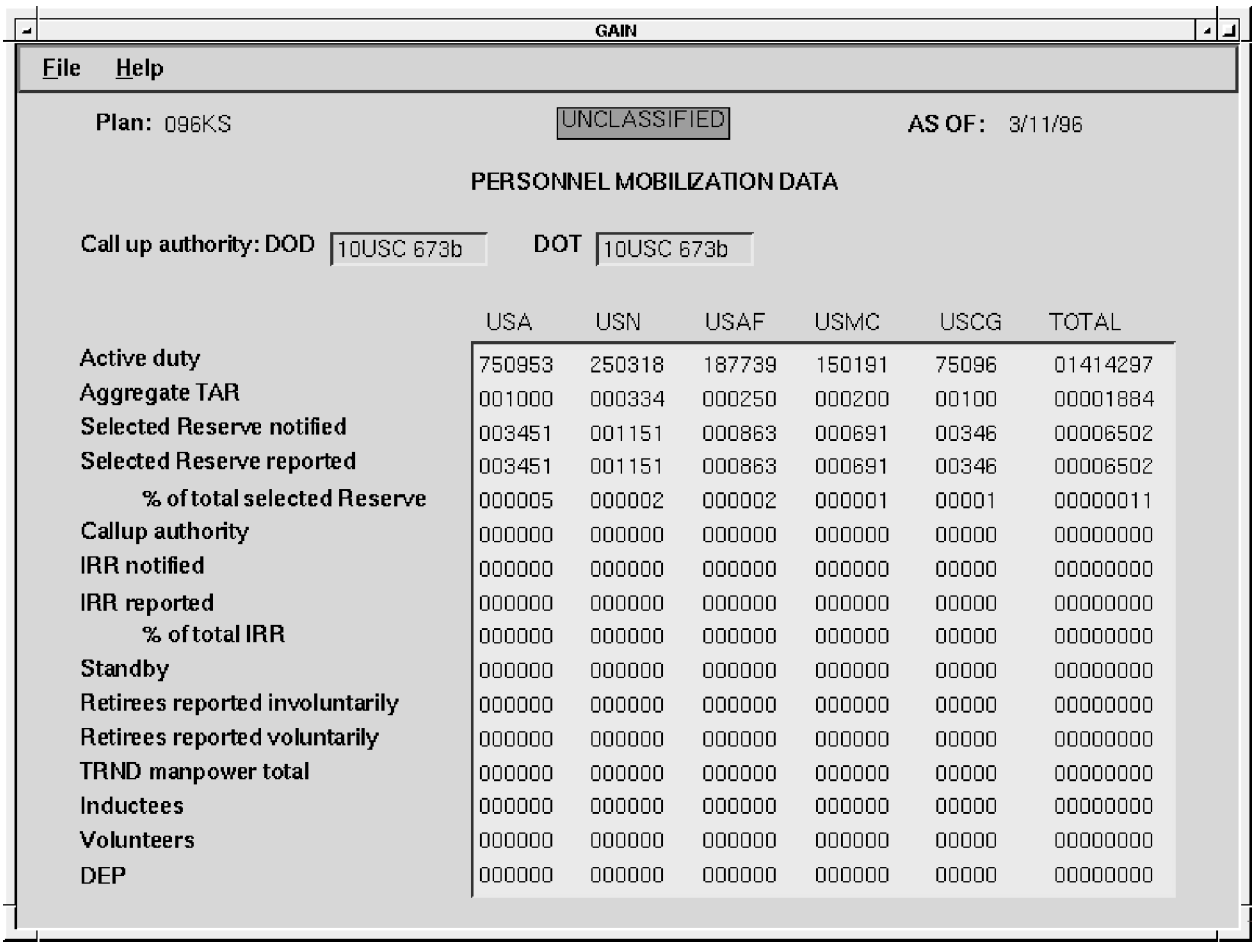
IMRAS **shall(2)** aggregate, by personnel source code, the number of mobilized personnel that have been notified.

IMRAS **shall(3)** aggregate, by personnel source code, the number of mobilized personnel that have reported.

IMRAS **shall(4)** calculate the percent of total selective reserve that have reported.

IMRAS **shall(5)** calculate the percent of total IRR that have reported.

IMRAS **shall(6)** display the Personnel Mobilization Data screen, as shown in Figure 3-29.



	USA	USN	USAF	USMC	USCG	TOTAL
Active duty	750953	250318	187739	150191	75096	01414297
Aggregate TAR	001000	000334	000250	000200	00100	00001884
Selected Reserve notified	003451	001151	000863	000691	00346	00006502
Selected Reserve reported	003451	001151	000863	000691	00346	00006502
% of total selected Reserve	000005	000002	000002	000001	00001	00000011
Callup authority	000000	000000	000000	000000	00000	00000000
IRR notified	000000	000000	000000	000000	00000	00000000
IRR reported	000000	000000	000000	000000	00000	00000000
% of total IRR	000000	000000	000000	000000	00000	00000000
Standby	000000	000000	000000	000000	00000	00000000
Retirees reported involuntarily	000000	000000	000000	000000	00000	00000000
Retirees reported voluntarily	000000	000000	000000	000000	00000	00000000
TRND manpower total	000000	000000	000000	000000	00000	00000000
Inductees	000000	000000	000000	000000	00000	00000000
Volunteers	000000	000000	000000	000000	00000	00000000
DEP	000000	000000	000000	000000	00000	00000000

Figure 3-29: Personnel Mobilization Data Input Screen.

IMRAS **shall(7)** allow the user to modify the data on the Personnel Mobilization Data input screen.

IMRAS **shall(8)** update Personnel Mobilization data in the IMRAS Database.

3.2.4.2 Deployment. Personnel Deployment provides the user with visibility of normal and high priority personnel movements and high personnel to support OPLAN execution, which includes up-to-date information on on scheduled and actual arrivals of groups of Non-unit personnel by occupation and grade. Figure 3-30 depicts the Personnel Deployment menu hierarchy.

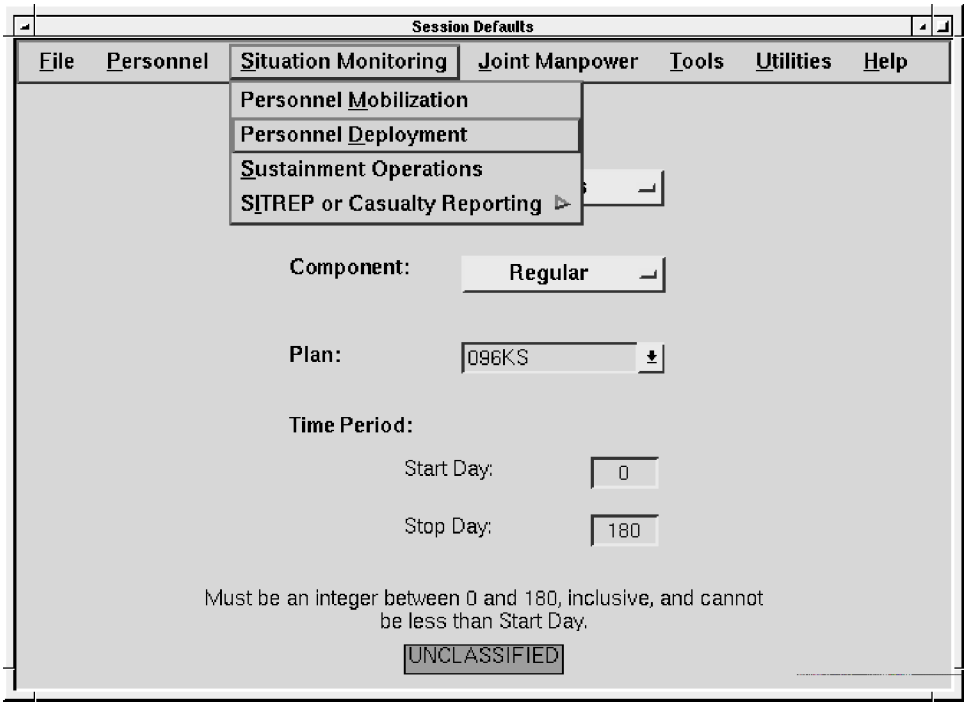


Figure 3-30: Personnel Deployment Menu Hierarchy.

IMRAS **shall(1)** have access to the JPAV application.

When the user selects the Personnel Deployment menu item, IMRAS **shall(2)** launch the JPAV application.

When the user is finished using JPAV, IMRAS **shall(3)** continue where the user left off.

3.2.4.3 Sustainment Operations. The Personnel Planner is required to monitor the flow of filler and replacement personnel into the theater of operations to ensure that NRP TPFDD planning and execution are adequate to support the Non-unit OPLAN. personnel movement is programmed during deliberate planning stage and updated during execution. Figure 3-31 depicts the Sustainment Operations menu hierarchy.

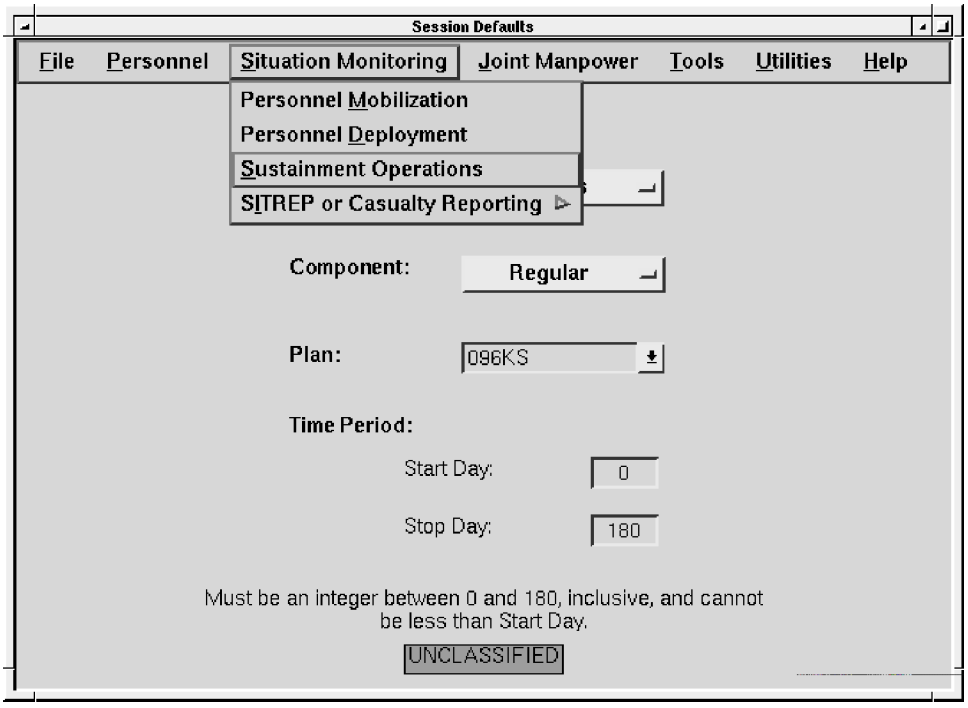


Figure 3-31: Sustainment Operations Menu Hierarchy.

IMRAS **shall(1)** identify all units that meet all criteria specified in Session Defaults.

IMRAS **shall(2)** identify the number of projected and the number of actual Non-unit personnel to arrive in theater.

IMRAS **shall(3)** aggregate the totals for projected and actual arrivals in 10 day increments over 90 days.

IMRAS **shall(4)** display the following Sustainment Operations data in tabular format as shown in Figure 3-32:

- C-Day (in 10 day increments)
- Non-Projected (Number of Non-unit personnel)
- Non-Actual (Number of have unit personnel that arrived in theater).

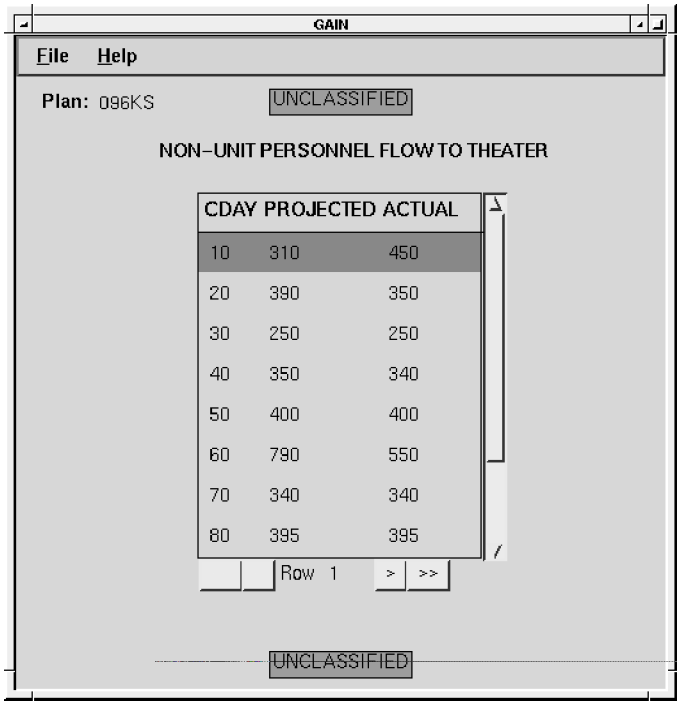
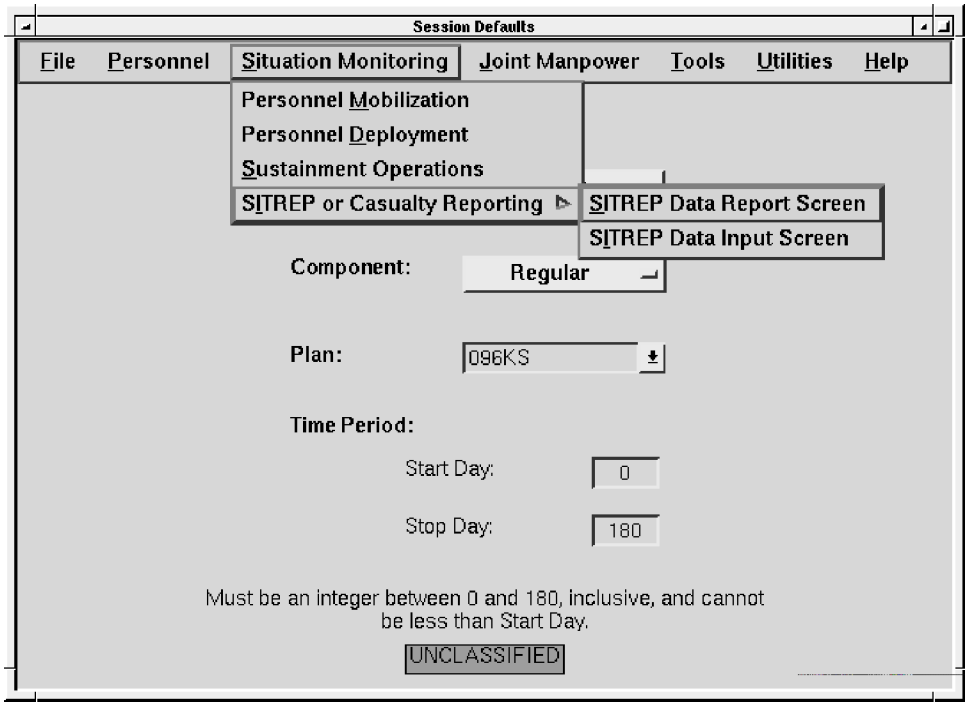


Figure 3-32: Non-Unit Personnel Flow to Theater.

3.2.4.4 SITREP and CASREP Data. SITREP and CASREP Data allows users to import data from United States Message Text Format (USMTF) either via the JOPES Automated Message Handling System or as a predefined JOPES Report (JOPESREP). Examples of USMTF data include:

- Personnel Status Report (PERSTAT)
- Military Postal Facility Request (POSTREQ)
- Mail Distribution Scheme Change (MAILDISTCH).

displays fields from Figure 3-33 and Data hierarchy.



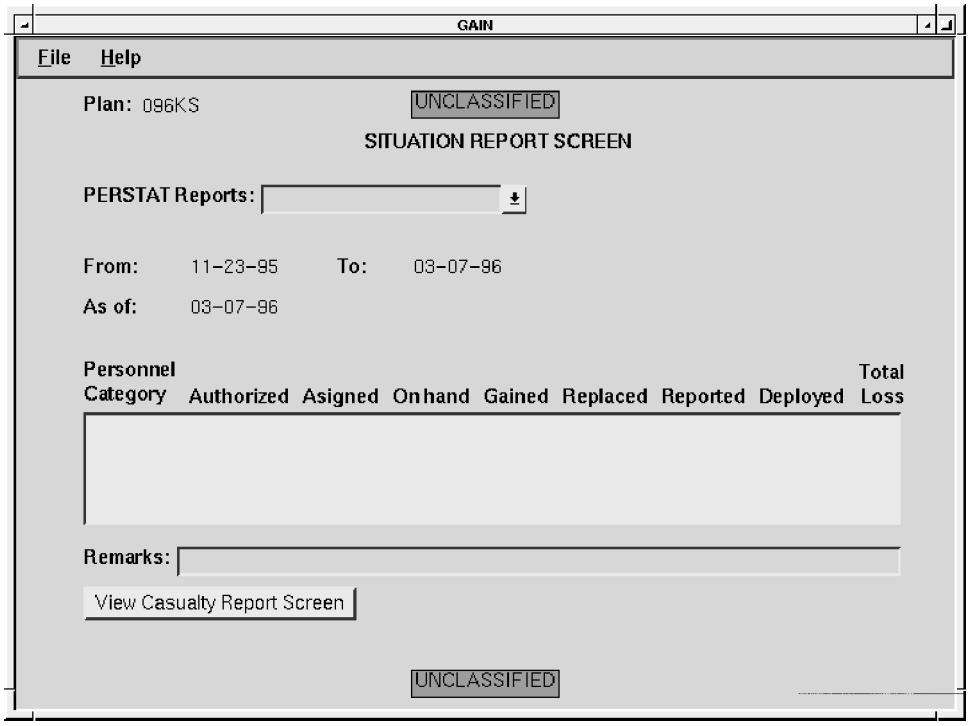
IMRAS selected each of reports. SITREP CASREP menu

Figure 3-33: SITREP and CASREP Menu Hierarchy.

IMRAS **shall(1)** allow the user to select one of the SITREPs or CASREPs.

For SITREPs, IMRAS **shall(2)** determine the PERSTAT data for the selected report.

IMRAS **shall(3)** aggregate the total loss for each category and status.



IMRAS shall (4) display the following STRP data:

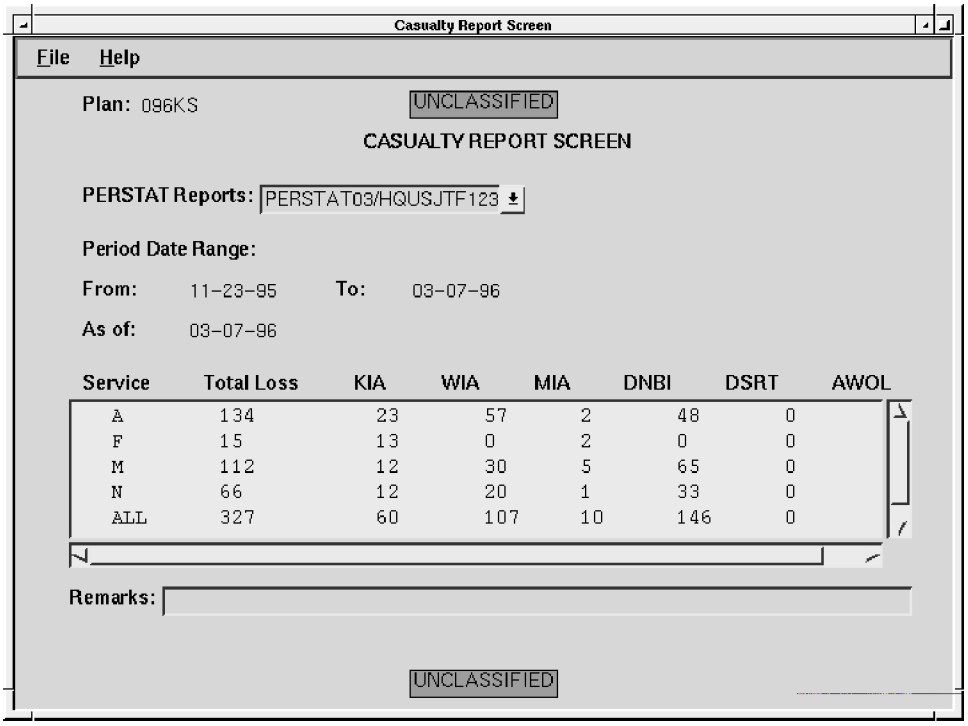
- Personnel Category
- Authorized (Personnel)
- Assigned (Personnel)
- On hand
- Gained
- Replaced
- Reported
- Deployed
- Total Loss
- Perstat Reports (Report from which the data was extracted)
- Period Date Range
- Remarks.

Figure 3-34 is an example of the Situation Report screen.

Figure 3-34: Situation Report.

For CASREPs, IMRAS **shall(5)** determine the Personnel Loss (PERLOSS) data for the selected report.

IMRAS **shall(6)** aggregate the total loss for each status.



- Service
- Total Loss
- KIA (Killed in Action)
- WIA (Wounded in Action)
- MIA (Missing in Action)
- DNBI
- DSRT
- AWOL (Absent Without Leave)
- Perstat Reports (Report from which the data was extracted)
- Period Date Range
- Remarks.

Figure 3-35 is an example of the Casualty Report screen.

Figure 3-35: Casualty Report.

IMRAS **shall(8)** allow the user to update the PERSTAT and PERLOSS data, by enlisted and officer personnel, as illustrated in Figure 3-36.

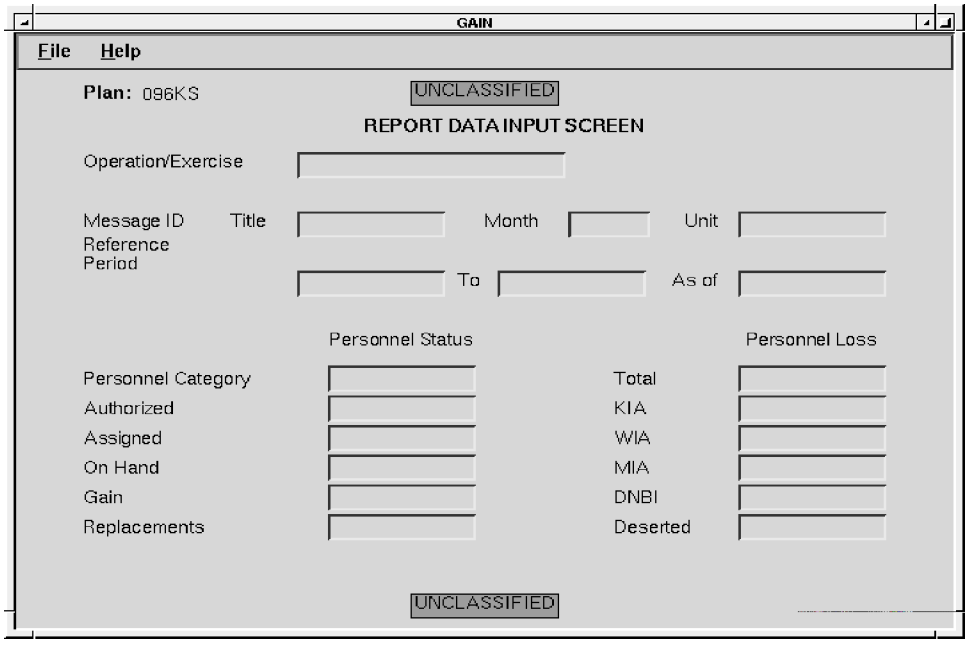


Figure 3-36: Report Data Input Screen.

IMRAS **shall(9)** update the SITREP and CASREP data in the GCCS Database.

3.2.5 Joint Personnel Monitoring Capability

The Joint Personnel Monitoring Capability provides “top-of-the-system” visibility of currently programmed and actual manning levels for the various Joint Headquarters. This capability has two options:

Joint Table of Distribution (JTD) Status
Joint Table of Mobilization Distribution (JTMD) Status.

3.2.5.1 JTD Status. The Joint Table of Distributi on establishes manning authorizat ions for the Unified Command s and Joint Activities. The JTDs are reviewed and updated on a regular basis and are programm ed into the Program Objective Memoran d u m y e a r s . The JTD attempts to provide equitable distributio n of Joint billets to the Commanders-in-Chief (CINCs) and Joint Activities in order to accomplish assigned missions. Figure 3-37 depicts the menu hierarchy for obtaining the Joint Personnel screens.

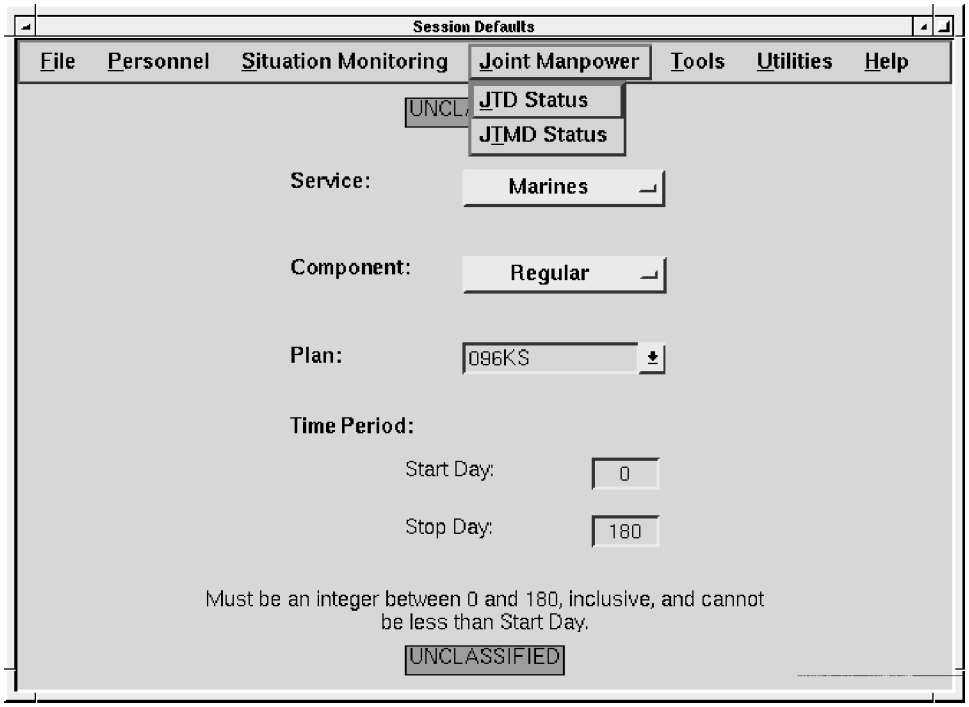


Figure 3-37: Joint Personnel Menu Hierarchy.

IMRAS **shall(1)** obtain the report type from the user: officer, enlisted, civilian, or combined.

IMRAS **shall(2)** identify all Units that meet the service and component criteria as specified in Session Defaults.

IMRAS **shall(3)** determine the number of filled and vacant personnel authorizations by grade.

IMRAS **shall(4)** determine the number of filled and vacant personnel authorizations by grade and occupation for each Work Center (WKC) and line.

IMRAS **shall(5)** display the JTD Detail Data screen, as illustrated in Figure 3-38, with the following data in tabular format:

- WKC
- Line
- Title
- Occ (Occupation)
- Grade
- SVC (Service)
- Status.

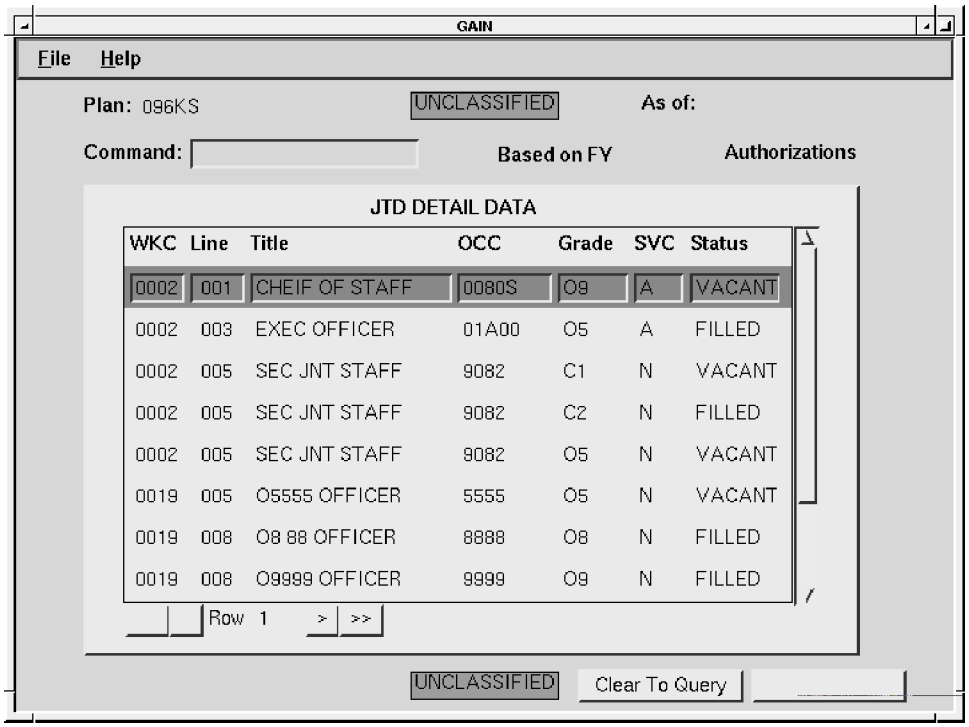


Figure 3-38: JTD Detail Data.

3.2.5.2 JTMD Status. The Joint Table of Mobilization Distribution establishes post-mobilization manning authorizations for the Unified Commands and Joint Activities. In addition to authorizing additional personnel to meet wartime and crisis conditions, the JTMD specifies billets that will be eliminated during mobilization.

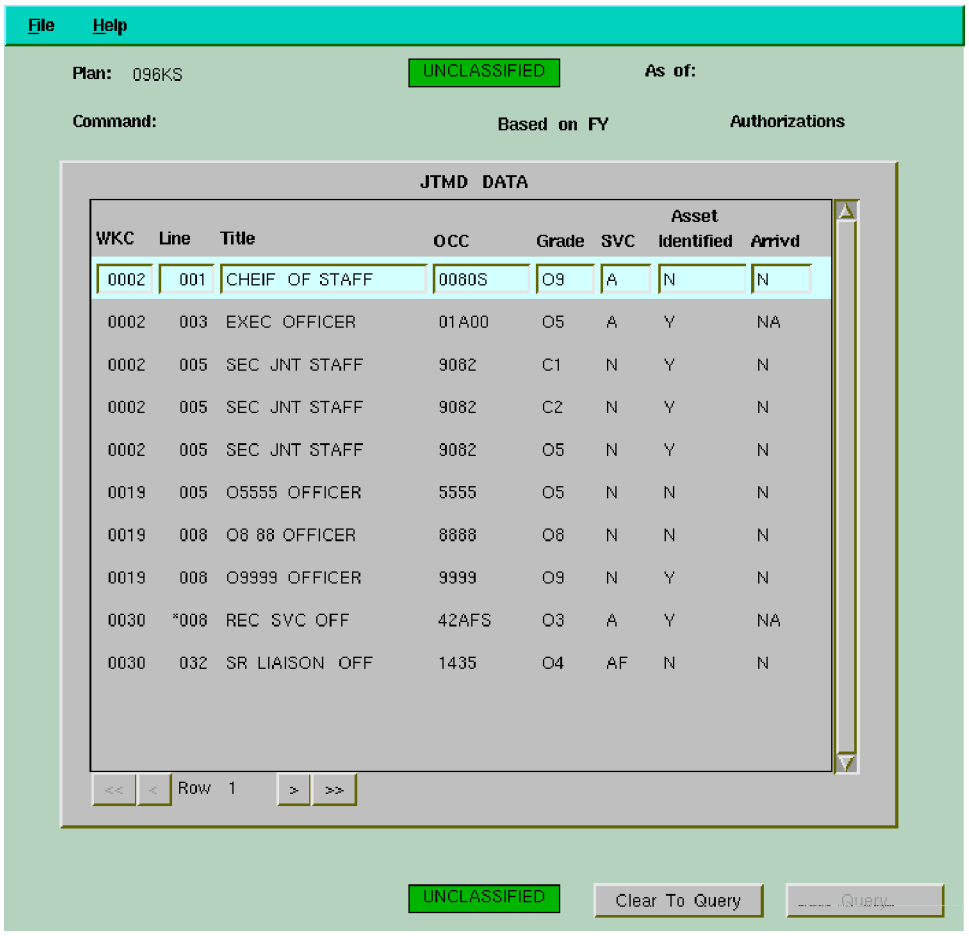
IMRAS **shall(1)** obtain selection criteria from the user: officer, enlisted, civilian, or combined.

IMRAS **shall(2)** identify all Units that meet the service and component criteria as specified in Session Defaults.

IMRAS **shall(3)** determine the number of personnel authorizations, by grade and occupation for each WKC and line, that have been identified and whether or not they have arrived.

IMRAS **shall(4)** display the JTMD Data screen, as shown in Figure 3-39, with the following data in tabular format:

- As of (Date that the JTMD was run)
- Based on FY (Fiscal year that the personnel authorizations reflect)
- WKC
- Line

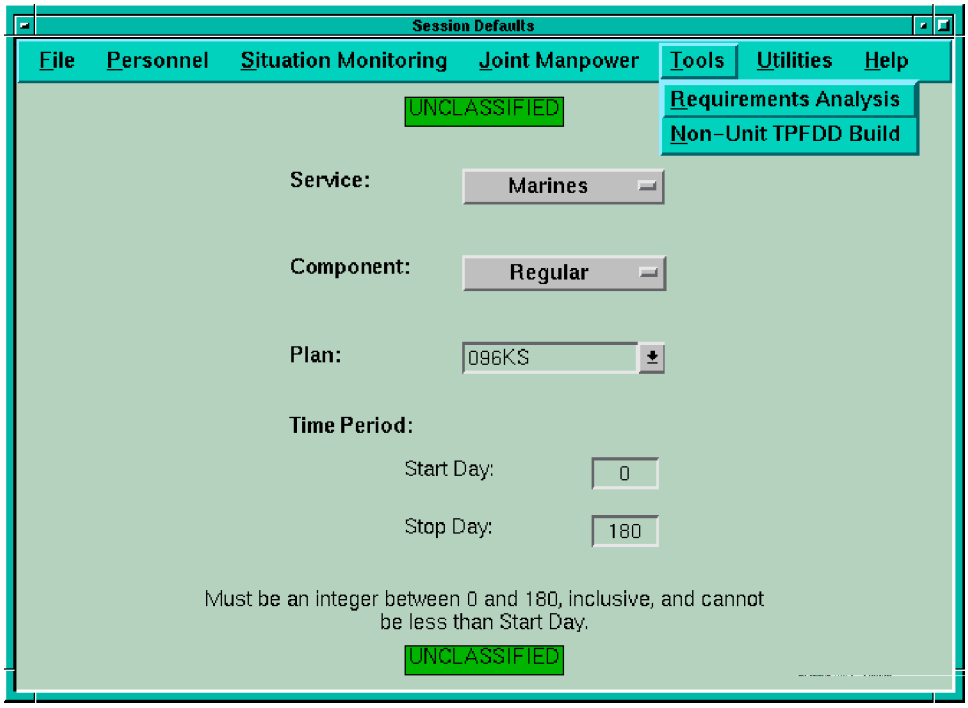


- File - Command - Occupation) - Grade - SVC (Service) - Asset Identified - Arrivd (Asset Arrived).

Figure 3-39: JTMD Data.

3.2.6 Tools

IMRAS provides the Tools abilities to:



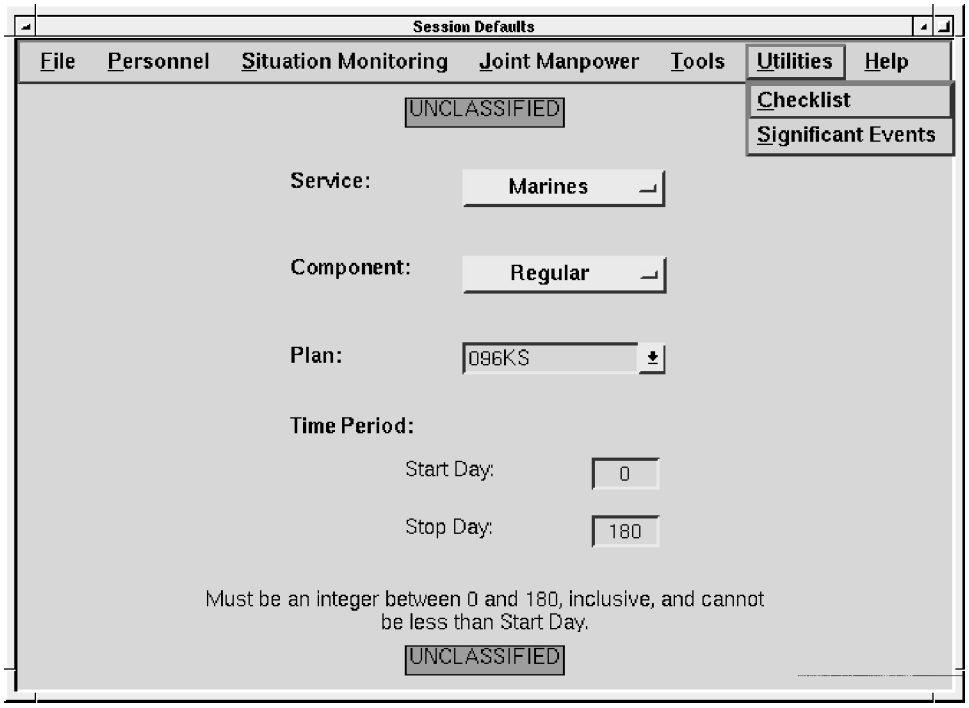
- Conduct filler and replacement equipment analysis to meet OPLAN requirements
- Build and modify Non-unit Replacement Personnel TPFDD files.

Both of these capabilities have already been developed under the name Non-unit Personnel Generator or NPG. They existed on the WWMCCS mainframe and were migrated to GCCS. On the mainframe, and according to the original IMRAS SRS, NPG accessed the Medical Planning Module. On GCCS, the Medical Planning Module has been replaced by MEPES. Figure 3-40 depicts the menu hierarchy for obtaining the IMRAS Tools screens.

Figure 3-40: IMRAS Tools Menu Hierarchy.

For more information on NPG, see the NPG User's Guide and the NPG Maintenance Manual.

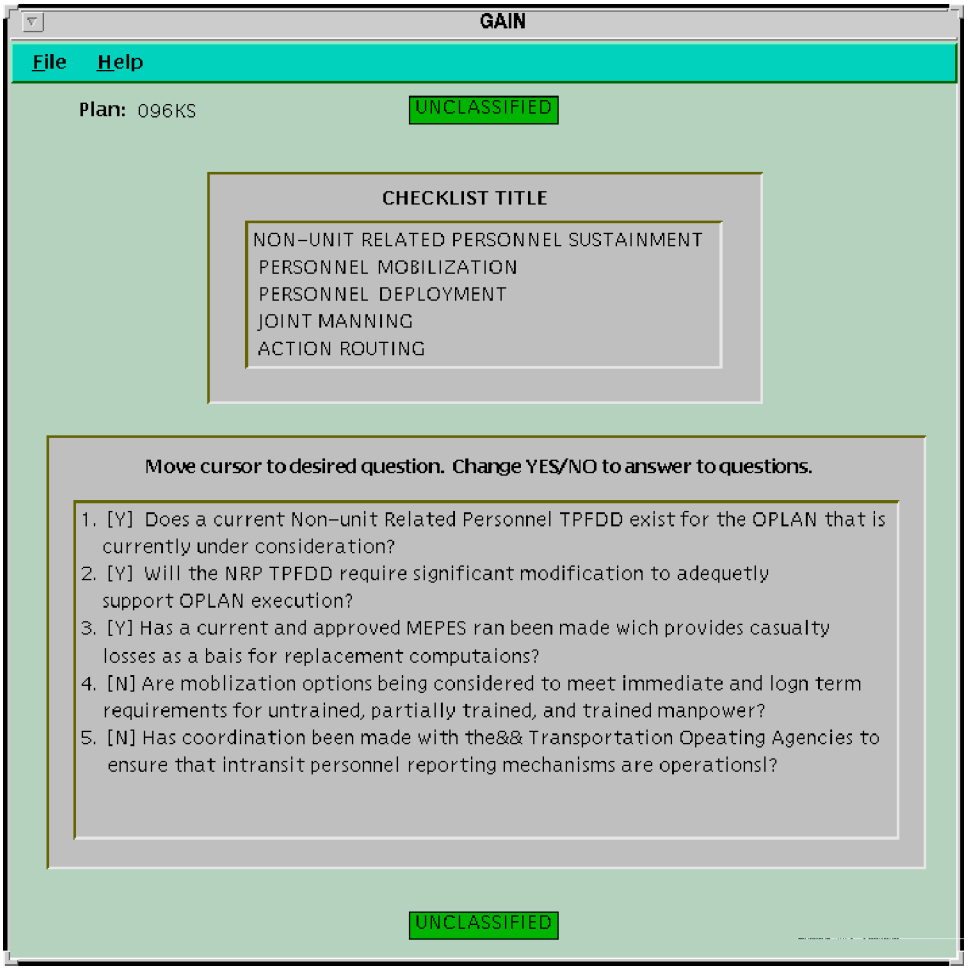
3.2.7 Utilities



The IMRAS Utilities enable the user to present personnel-related information effectively and to relate to the rest of the community. The utilities will allow planners and Joint Staff officers to perform assessments and requirements decision briefs personnel makers on IMRAS issues. contains two utilities: Checklist and Significant Events. Figure 3-41 depicts the menu hierarchy for obtaining the IMRAS Utilities screens.

Figure 3-41: IMRAS Utilities Menu Hierarchy.

3.2.7.1. Checklist The Checklist provides the action officer or planner with a list of considerations to applicable planning and execution personnel mobilization, deployment, sustainment, and operations. It is used alone or in conjunction with the events on significant lists.



IMRAS **shall(1)** display a list of available checklists.

IMRAS **shall(2)** allow the user to select one of the checklists for display as shown in Figure 3-42.

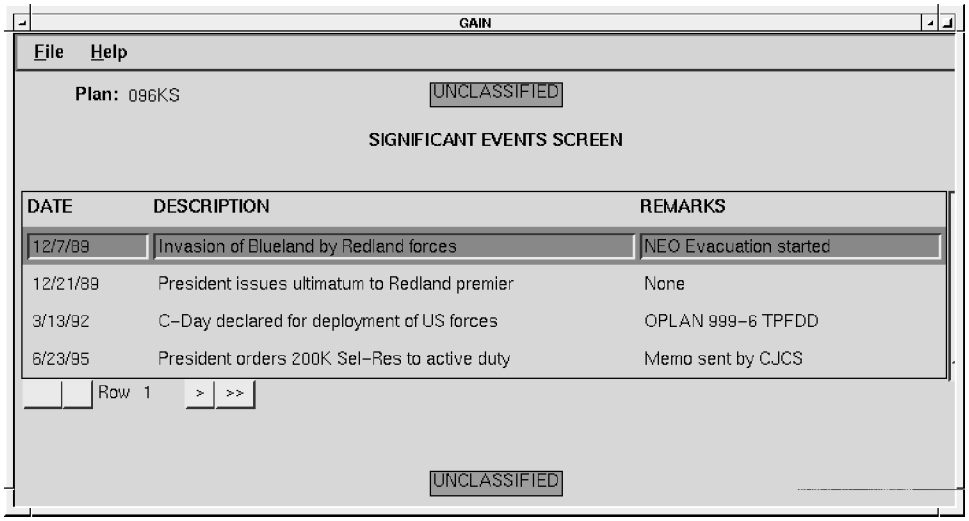
Figure 3-42: Checklist Selection Screen.

IMRAS **shall(3)** display the selected checklist.

IMRAS **shall(4)** allow the user to modify the checklist.

IMRAS **shall(5)** save the changes to the GCCS database.

3.2.7.2 Significant Events. Significant Events provide a historical record of various types of events and a chronology of actions taken. This function displays the events and allows the user to modify them or add new ones as they occur.



IMRAS **shall(1)** determine the significant events.

- IMRAS **shall(2)** display the Significant Events screen, as shown in Figure 3-43, with the following data in tabular format:

  - Date (of the event)
  - Description (Description of the significant event)
  - Remarks.

Figure 3-43: Significant Events.

- IMRAS **shall(3)** allow the user to modify all fields on the Significant Events screen.
- IMRAS **shall(4)** save the changes to the GCCS Database.

SECTION 4 - TEST REQUIREMENTS

4.1 GENERAL

This section contains the general test requirements that will be used to verify that the software meets the requirements specified in Section 3 of this document. There are two categories of test verification identified below: test classes and subclasses.

The test classes and subclasses identified in the Verification Cross Reference Matrix (VCRM) will be used in the Test Plan and identifies how the requirement will be tested and verified. Test Classes identify the type of testing that will be conducted and the subclasses define the extent of that testing.

4.2 GENERAL TEST REQUIREMENTS

The following general test requirements are applicable to the test cases that will be included in the Test Plan.

All tests shall verify that appropriate responses, in the form of expected results, are received for each test case.

All tests shall verify that, where appropriate, database changes result from functions performed by the tester as defined in the expected results column of the test case.

4.3 TEST CLASSES

Individual tests will generally cover verifying operations within major functional boundaries or follow a logical data flow thread through one or more functions. The various test classes include:

Display (DIS) - Validates the screen contents and format are proper.

Input (INP) - Assesses ability of system to edit input and either provide error notification or begin the required processing.

Report (RPT) - Verifies that the system generates the required hard copy report.

Response (RSP) - Verifies that the system provides the proper response such as updating the database and providing output to the appropriate interface.

Observe (OBS) - Verifies that established procedures identified in the respective test case are carried out.

Inspection (INS) - Verifies through visual examination of vendor documentation or through analysis data, such as trade studies, that the technical or functional requirements have been satisfied by a Commercial-Off-the-Shelf (COTS) product.

4.4 TEST SUBCLASSES

Test subclasses define the extent of testing of the test class, the types of subclass testing are listed below.

Nominal (NOM) - Verification of normal functions using nominal inputs.

Boundary (BND) - Verification of normal function with minimum/maximum input values.

Erroneous (ERR) - These types of tests include invalid inputs from external sources such as invalid transactions or out of range values contained in valid transactions or other system operator inputs.

Not Applicable (N/A) - Used when verification method does not involve a test or demonstration.

4.5 VERIFICATION CROSS REFERENCE MATRIX (VCRM)

The VCRM shown below contains the general (high level) requirements from Section 3. The specification paragraph is also shown along with the testing class and subclass for each requirement.

These requirements will be decomposed further into detailed requirements and allocated to test cases in the Test Plan. These detailed requirements will also be loaded into the Configuration Management (CM) Tools System, Requirements Tracking Table. This insures that all requirements are assigned to the proper software module or unit and also provides the traceability from the requirement to the Test Case.

Table 4-1: Verification Cross Reference Matrix.

Para.	General Requirements Summary	Test Class	Test Subclass
3.1	IMRAS GENERAL REQUIREMENTS	INS	N/A
3.2	IMRAS INTERFACE REQUIREMENTS		
3.2.1	IMRAS External Interface Requirements	INP, RSP	NOM, ERR
3.2.2	IMRAS Internal Interface Requirements	INS	N/A
3.3	IMRAS CAPABILITY REQUIREMENTS		
3.3.1	Session Defaults Input Error	INP, DIS INP	NOM ERR
3.3.2	PERSONNEL PLANNING APPLICATION Create New Document	INP, DIS INP, DIS, RSP	NOM, ERR NOM, BND
3.3.3	PERSONNEL DATA APPLICATION		
3.3.3.1	Individual Mobilization Augmentee (IMA) Application	INP, DIS	NOM, ERR
3.3.3.2	Retirees	INP, DIS	NOM, ERR
3.3.3.3	Individual Ready Reserve (IRR)	INP, DIS	NOM, ERR
3.3.3.4	Delayed Entry Program (DEP)	INP, DIS	NOM, ERR
3.3.3.5	Overhead Accounts	INP, DIS	NOM, ERR
3.3.3.6	Critical Specialties Add, Delete, Modify Data	INP, DIS INP, DIS, RSP	NOM, ERR NOM, BND, ERR
3.3.3.7	Demographics	INP, DIS	NOM, ERR
3.3.3.8	Unit Manning	INP, DIS	NOM, ERR
3.3.4	SITUATION MONITORING		

Para.	General Requirements Summary	Test Class	Test Subclass
3.3.4.1	Personnel Mobilization	INP, DIS	NOM, ERR
	Modify Data	INP, DIS, RSP	NOM, BND, ERR
3.3.4.2	Personnel Deployment	INP, DIS	NOM, ERR
	Launch JPAV	INP, DIS	NOM, ERR
3.3.4.3	Sustainment Operations	INP, DIS	NOM, ERR
3.3.4.4	SITREP and CASREP Data	INP, DIS	NOM
	Update Data	INP, DIS, RSP	NOM, BND, ERR
3.3.5	JOINT MANPOWER MONITORING CAPABILITY		
3.3.5.1	JTD Status	INP, DIS	NOM, ERR
3.3.5.2	JTMD Status	INP, DIS	NOM, ERR
3.3.6	TOOLS		
3.3.6.1	COA Analysis (TBD)		
3.3.6.2	Import/Export TPFDDs and SRFs (TBD)		
3.3.7	UTILITIES (TBD)		

SECTION 5 - NOTES

5.1 TERMS, ABBREVIATIONS, AND ACRONYMS

ASI . . . . . Additional Skill Identifier

BND . . . . . Boundary

C-Day . . . . . Deployment Operation Commencement Day
C-Level . . . . . Product Specification Level
CASREP . . . . . Casualty Report
CD . . . . . Compact Disc
CINC . . . . . Commander-in-Chief
CM . . . . . Configuration Management
CMDS . . . . . Command Manpower Data System
COMPES . . . . . Contingency Operations/Mobility Planning and Execution System
CONUS . . . . . Continental United States
COTS . . . . . Commercial-Off-The-Shelf

DEP . . . . . Dependents
DII . . . . . Defense Information Infrastructure
DIS . . . . . Display
DISA . . . . . Defense Information Systems Agency
DMDC . . . . . Defense Manpower Data Center
DOD . . . . . Department of Defense

ERR . . . . . Erroneous

GCCS . . . . . Global Command and Control System
GTN-ITV . . . . . Global Transportation Network - In Transit Visibility System

IMA . . . . . Individual Mobilization Augmentee
IMRAS . . . . . Individual Manpower Requirements and Availability System
INP . . . . . Input
INS . . . . . Inspection
IRR . . . . . Individual Ready Reserve
IRS . . . . . Interface Requirements Specification

JOPES . . . . . Joint Operation Planning and Execution System
JOPESREP . . . . . JOPES Report
JPAV . . . . . Joint Personnel Asset Visibility
JRS . . . . . Joint Reporting System
JTD . . . . . Joint Table of Distribution
JTMD . . . . . Joint Table of Mobilization Distribution

LAD . . . . . Unit Latest Arrival Date
LDM . . . . . Logical Data Model

MAILDISTCH . . . . . Mail Distribution Scheme Change
MEPES . . . . . Medical Planning and Execution System

N/A . . . . . Not Applicable
NCPDS . . . . . Navy Civilian Personnel Data System
NES . . . . . Navy Enlisted System
NMDAS . . . . . Navy Manpower Data Accounting System
NOM . . . . . Nominal
NPG . . . . . Non-unit Personnel Generator
NRP . . . . . Non-unit Related Personnel

OBS . . . . . Observe
OPINS . . . . . Officer Personnel Information System
OPLAN . . . . . Operation Plan
OSD . . . . . Officer of the Secretary of Defense

PAL . . . . . Personnel Allowance System
PERLOSS . . . . . Personnel Loss
PERSTAT . . . . . Personnel Status Report
PMIS . . . . . Personnel Management Information System
POD . . . . . Port of Debarkation
POSTREQ . . . . . Military Postal Facility Request

REMMPS . . . . . Reserve Manpower Management and Pay System
ROTC . . . . . Reserve Officer Training Corp
RPT . . . . . Report
RSP . . . . . Response
RTS . . . . . Requirements Traceability System

SIDPERS-3 . . . . . Standard Installation/Division Personnel System-3
SITREP . . . . . Situation Report
SRA . . . . . Systems Research and Applications Corporation
SRS . . . . . Software Requirements Specification

T/MR . . . . . Table of Manpower Requirements
TAPDB . . . . . Total Army Personnel Data Base
TPFDD . . . . . Time-Phased Force and Deployment Data

UD/MIPS . . . . . Unit Diary/Marine Integrated Personnel System
UIC . . . . . Unit Identification Code
USMTF . . . . . United States Message Text Format

VCRM . . . . . Verification Cross Reference Matrix

WKC . . . . . Work Center
WWMCCS . . . . . World Wide Military Command and Control System